

Exam Code: CLF-C02

Exam Name: AWS Certified Cloud Practitioner



Exam A

QUESTION 1

Which design principle is achieved by following the reliability pillar of the AWS Well-Architected Framework?

- A. Vertical scaling
- B. Manual failure recovery
- C. Testing recovery procedures
- D. Changing infrastructure manually

Correct Answer: C

Section:

Explanation:

: Testing recovery procedures is the design principle that is achieved by following the reliability pillar of the AWS Well-Architected Framework. The reliability pillar focuses on the ability of a system to recover from failures and prevent disruptions. Testing recovery procedures helps to ensure that the system can handle different failure scenarios and restore normal operations as quickly as possible.

Testing recovery procedures also helps to identify and mitigate any risks or gaps in the system design and implementation. For more information, see [Reliability Pillar] and [Testing for Reliability].

QUESTION 2

What is a benefit of moving to the AWS Cloud in terms of improving time to market?

- A. Decreased deployment speed
- B. Increased application security
- C. Increased business agility
- D. Increased backup capabilities

Correct Answer: C

Section:

Explanation:

Increased business agility is a benefit of moving to the AWS Cloud in terms of improving time to market. Business agility refers to the ability of a company to adapt to changing customer needs, market conditions, and competitive pressures. Moving to the AWS Cloud enables business agility by providing faster access to resources, lower upfront costs, and greater scalability and flexibility. By using the AWS Cloud, companies can launch new products and services, experiment with new ideas, and respond to customer feedback more quickly and efficiently. For more information, see [Benefits of Cloud Computing] and [Business Agility].

QUESTION 3

A company wants high levels of detection and near-real-time (NRT) mitigation against large and sophisticated distributed denial of service (DDoS) attacks on applications running on AWS. Which AWS service should the company use?

- A. Amazon GuardDuty
- B. Amazon Inspector
- C. AWS Shield Advanced
- D. Amazon Macie

Correct Answer: C

Section:

Explanation:

AWS Shield Advanced is a service that provides high levels of detection and near-real-time (NRT) mitigation against large and sophisticated distributed denial of service (DDoS) attacks on applications running on AWS. AWS



Shield Advanced also provides you with 24x7 access to the AWS DDoS Response Team (DRT) and protection against DDoS attacks of any size or duration¹. Amazon GuardDuty is a service that provides threat detection for your AWS accounts and workloads, but it does not offer DDoS protection³. Amazon Inspector is a service that helps you improve the security and compliance of your applications deployed on AWS by automatically assessing them for vulnerabilities and deviations from best practices. Amazon Macie is a service that uses machine learning and pattern matching to discover and protect your sensitive data in AWS.

QUESTION 4

A company needs to control inbound and outbound traffic for an Amazon EC2 instance. Which AWS service or feature can the company associate with the EC2 instance to meet this requirement?

- A. Network ACL
- B. Security group
- C. AWS WAF
- D. VPC route tables

Correct Answer: B

Section:

Explanation:

A security group is a virtual firewall that can be associated with an Amazon EC2 instance to control the inbound and outbound traffic for the instance. You can specify which protocols, ports, and source or destination IP ranges are allowed or denied by the security group. A network ACL is a stateless filter that can be associated with a subnet to control the traffic to and from the subnet, but it is not associated with an EC2 instance⁴. AWS WAF is a web application firewall that helps protect your web applications or APIs against common web exploits that may affect availability, compromise security, or consume excessive resources. VPC route tables are used to determine where network traffic is directed within a VPC or to an internet gateway, virtual private gateway, NAT device, VPC peering connection, or VPC endpoint.

QUESTION 5

A company is expecting a short-term spike in internet traffic for its application. During the traffic increase, the application cannot be interrupted. The company also needs to minimize cost and maximize flexibility. A company needs to use a serverless interactive query service to analyze data in Amazon S3. The query service must support standard SQL. Which AWS service will meet these requirements?

- A. Amazon Redshift
- B. AWS Glue
- C. Amazon Athena
- D. Amazon Kinesis Data Streams

Correct Answer: C

Section:

Explanation:

Amazon Athena is a serverless interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL. Athena is ideal for quick, ad-hoc querying but it can also handle complex analysis, including large joins, window functions, and arrays. Athena scales automatically-executing queries in parallel-so results are fast, even with large datasets and complex queries. Amazon Redshift is a fully managed, petabyte-scale data warehouse service that can run complex analytic queries against structured and semi-structured data using standard SQL. However, it is not a serverless service and requires provisioning and managing clusters of nodes. AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy to prepare and load your data for analytics. However, it is not a query service and does not support standard SQL. Amazon Kinesis Data Streams is a service that enables you to build custom applications that process or analyze streaming data for specialized needs. However, it is not a query service and does not support standard SQL.

QUESTION 6

A company needs to run a workload for several batch image rendering applications. It is acceptable for the workload to experience downtime. Which Amazon EC2 pricing model would be MOST cost-effective in this situation?

- A. On-Demand Instances
- B. Reserved Instances
- C. Dedicated Instances
- D. Spot Instances

Correct Answer: D

Section:

Explanation:

Amazon EC2 Spot Instances are instances that use spare EC2 capacity that is available at up to a 90% discount compared to On-Demand prices. You can use Spot Instances for various stateless, fault-tolerant, or flexible applications such as big data, containerized workloads, high-performance computing (HPC), and test & development workloads. Spot Instances are ideal for workloads that can be interrupted, such as batch image rendering applications¹. On-Demand Instances are instances that let you pay for compute capacity by the hour or second (minimum of 60 seconds) with no long-term commitments. This frees you from the costs and complexities of planning, purchasing, and maintaining hardware and transforms what are commonly large fixed costs into much smaller variable costs². Reserved Instances are instances that provide you with a significant discount (up to 75%) compared to On-Demand Instance pricing. In exchange, you select a term and make an upfront payment to reserve a certain amount of compute capacity for that term³. Dedicated Instances are instances that run in a VPC on hardware that's dedicated to a single customer. Your Dedicated Instances are physically isolated at the host hardware level from instances that belong to other AWS accounts⁴.

QUESTION 7

A company has an application that runs periodically in an on-premises environment. The application runs for a few hours most days, but runs for 8 hours a day for a week at the end of each month. Which AWS service or feature should be used to host the application in the AWS Cloud?

- A. Amazon EC2 Standard Reserved Instances
- B. Amazon EC2 On-Demand Instances
- C. AWS Wavelength
- D. Application Load Balancer

Correct Answer: B

Section:

Explanation:

Amazon EC2 On-Demand Instances are instances that let you pay for compute capacity by the hour or second (minimum of 60 seconds) with no long-term commitments. This frees you from the costs and complexities of planning, purchasing, and maintaining hardware and transforms what are commonly large fixed costs into much smaller variable costs. On-Demand Instances are suitable for applications with short-term, irregular, or unpredictable workloads that cannot be interrupted, such as periodic applications that run for a few hours most days, but run for 8 hours a day for a week at the end of each month². Amazon EC2 Standard Reserved Instances are instances that provide you with a significant discount (up to 75%) compared to On-Demand Instance pricing. In exchange, you select a term and make an upfront payment to reserve a certain amount of compute capacity for that term. Reserved Instances are suitable for applications with steady state or predictable usage that require reserved capacity³. AWS Wavelength is a service that enables developers to build applications that deliver ultra-low latency to mobile devices and users by deploying AWS compute and storage at the edge of the 5G network. Wavelength is suitable for applications that require single-digit millisecond latencies, such as game and live video streaming, machine learning inference at the edge, and augmented and virtual reality (AR/VR). Application Load Balancer is a service that operates at the request level (layer 7) and distributes incoming application traffic across multiple targets, such as EC2 instances, containers, Lambda functions, and IP addresses. Application Load Balancer is suitable for applications that need advanced routing capabilities, such as microservices or container-based architectures.

QUESTION 8

A company is planning to migrate to the AWS Cloud. The company is conducting organizational transformation and wants to become more responsive to customer inquiries and feedback. Which tasks should the company perform to meet these requirements, according to the AWS Cloud Adoption Framework (AWS CAF)? (Select TWO.)

- A. Realign teams to focus on products and value streams.
- B. Create new value propositions with new products and services.
- C. Use agile methods to rapidly iterate and evolve.
- D. Use a new data and analytics platform to create actionable insights.
- E. Migrate and modernize legacy infrastructure.

Correct Answer: A, C

Section:

Explanation:

Realigning teams to focus on products and value streams, and using agile methods to rapidly iterate and evolve are tasks that the company should perform to meet the requirements of becoming more responsive to customer inquiries and feedback, according to the AWS Cloud Adoption Framework (AWS CAF). AWS CAF organizes guidance into six areas of focus, called perspectives: business, people, governance, platform, security, and operations. Each perspective is divided into capabilities, which describe the skills and processes to execute the transition effectively. The people perspective helps you prepare your organization for cloud adoption, and includes

capabilities such as organizational change management, staff skills and readiness, and organizational alignment. The business perspective helps you align IT strategy with business strategy, and includes capabilities such as business case development, value proposition, and product ownership. Creating new value propositions with new products and services is a task that belongs to the business perspective, but it is not directly related to the requirement of becoming more responsive to customer inquiries and feedback. Using a new data and analytics platform to create actionable insights is a task that belongs to the platform perspective, which helps you design, implement, and optimize the architecture of the AWS environment. However, it is also not directly related to the requirement of becoming more responsive to customer inquiries and feedback. Migrating and modernizing legacy infrastructure is a task that belongs to the operations perspective, which helps you enable, run, use, operate, and recover IT workloads to the level agreed upon with your business stakeholders. However, it is also not directly related to the requirement of becoming more responsive to customer inquiries and feedback.

QUESTION 9

In which of the following AWS services should database credentials be stored for maximum security?

- A. AWS Identity and Access Management (IAM)
- B. AWS Secrets Manager
- C. Amazon S3
- D. AWS Key Management Service (AWS KMS)

Correct Answer: B

Section:

Explanation:

AWS Secrets Manager is the AWS service where database credentials should be stored for maximum security. AWS Secrets Manager helps to protect the secrets, such as database credentials, passwords, API keys, and tokens, that are used to access applications, services, and resources. AWS Secrets Manager enables secure storage, encryption, rotation, and retrieval of the secrets. AWS Secrets Manager also integrates with other AWS services, such as AWS Identity and Access Management (IAM), AWS Key Management Service (AWS KMS), and AWS Lambda. For more information, see [What is AWS Secrets Manager?] and [Getting Started with AWS Secrets Manager].

QUESTION 10

A company needs to configure rules to identify threats and protect applications from malicious network access. Which AWS service should the company use to meet these requirements?

- A. AWS Identity and Access Management (IAM)
- B. Amazon QuickSight
- C. AWS WAF
- D. Amazon Detective

Correct Answer: C

Section:

Explanation:

AWS WAF is the AWS service that the company should use to configure rules to identify threats and protect applications from malicious network access. AWS WAF is a web application firewall that helps to filter, monitor, and block malicious web requests based on customizable rules. AWS WAF can be integrated with other AWS services, such as Amazon CloudFront, Amazon API Gateway, and Application Load Balancer. For more information, see What is AWS WAF? and How AWS WAF Works.

QUESTION 11

What does "security of the cloud" refer to in the AWS shared responsibility model?

- A. Availability of AWS services such as Amazon EC2
- B. Security of the cloud infrastructure that runs all the AWS services
- C. Implementation of password policies for IAM users
- D. Security of customer environments by using AWS Network Firewall partners

Correct Answer: B

Section:**Explanation:**

Security of the cloud refers to the security of the cloud infrastructure that runs all the AWS services.

This includes the hardware, software, networking, and facilities that AWS operates and manages.

AWS is responsible for protecting the security of the cloud as part of the AWS shared responsibility model. Availability of AWS services such as Amazon EC2 refers to the ability of the services to be up and running and to meet the expected performance. Availability is part of the reliability pillar of the AWS Well-Architected Framework and is a shared responsibility between AWS and the customer .

Implementation of password policies for IAM users refers to the security of the customer data and applications in the cloud. This includes the configuration and management of IAM user permissions, encryption keys, security group rules, network ACLs, and other aspects of access management. The customer is responsible for protecting the security in the cloud as part of the AWS shared responsibility model. Security of customer environments by using AWS Network Firewall partners refers to the security of the customer data and applications in the cloud. AWS Network Firewall is a managed service that provides network protection for Amazon VPCs. It allows customers to use AWS Marketplace partners to implement firewall rules and policies. The customer is responsible for protecting the security in the cloud as part of the AWS shared responsibility model .

QUESTION 12

Which AWS service or tool should a company use to forecast AWS spending?

- A. Amazon DevPay
- B. AWS Organizations
- C. AWS Trusted Advisor
- D. Cost Explorer

Correct Answer: D

Section:**Explanation:**

Cost Explorer is an AWS service or tool that can be used to forecast AWS spending. It allows users to analyze their AWS costs and usage using interactive graphs and tables. It also provides features such as filtering, grouping, and forecasting to help users plan their future spending. Amazon DevPay is an AWS service that allows developers to sell applications that are built on AWS services. It handles the billing and metering for the customers of the applications and collects payments from them. It is not a tool for forecasting AWS spending. AWS Organizations is an AWS service that allows users to centrally manage and govern their AWS accounts. It provides features such as creating groups of accounts, applying policies, and automating account creation. It is not a tool for forecasting AWS spending. AWS Trusted Advisor is an AWS service that provides best practices and recommendations to optimize the performance, security, and cost of AWS resources. It can help users identify opportunities to reduce their AWS costs, but it is not a tool for forecasting AWS spending

QUESTION 13

A cloud engineer needs to download AWS security and compliance documents for an upcoming audit.

Which AWS service can provide the documents?

- A. AWS Trusted Advisor
- B. AWS Artifact
- C. AWS Well-Architected Tool
- D. AWS Systems Manager

Correct Answer: B

Section:**Explanation:**

AWS Artifact is the AWS service that can provide security and compliance documents for an upcoming audit. AWS Artifact is a self-service portal that allows users to access and download AWS compliance reports and agreements. These documents provide evidence of AWS's compliance with global, regional, and industry-specific security standards and regulations

QUESTION 14

A company has been storing monthly reports in an Amazon S3 bucket. The company exports the report data into comma-separated values (.csv) files. A developer wants to write a simple query that can read all of these files and generate a summary report.

Which AWS service or feature should the developer use to meet these requirements with the LEAST amount of operational overhead?

- A. Amazon S3 Select
- B. Amazon Athena
- C. Amazon Redshift
- D. Amazon EC2

Correct Answer: B

Section:

Explanation:

Amazon Athena is the AWS service that the developer should use to write a simple query that can read all of the .csv files stored in an Amazon S3 bucket and generate a summary report. Amazon Athena is an interactive query service that allows users to analyze data in Amazon S3 using standard SQL. Amazon Athena does not require any server setup or management, and users only pay for the queries they run. Amazon Athena can handle various data formats, including .csv, and can integrate with other AWS services such as Amazon QuickSight for data visualization

QUESTION 15

Which task requires the use of AWS account root user credentials?

- A. The deletion of IAM users
- B. The change to a different AWS Support plan
- C. The creation of an organization in AWS Organizations
- D. The deletion of Amazon EC2 instances

Correct Answer: C

Section:

Explanation:

The creation of an organization in AWS Organizations requires the use of AWS account root user credentials. The AWS account root user is the email address that was used to create the AWS account. The root user has complete access to all AWS services and resources in the account, and can perform sensitive tasks such as changing the account settings, closing the account, or creating an organization. The root user credentials should be used sparingly and securely, and only for tasks that cannot be performed by IAM users or roles⁴

QUESTION 16

Which feature of the AWS Cloud gives users the ability to pay based on current needs rather than forecasted needs?

- A. AWS Budgets
- B. Pay-as-you-go pricing
- C. Volume discounts
- D. Savings Plans

Correct Answer: B

Section:

Explanation:

Pay-as-you-go pricing is the feature of the AWS Cloud that gives users the ability to pay based on current needs rather than forecasted needs. Pay-as-you-go pricing means that users only pay for the AWS services and resources they use, without any upfront or long-term commitments. This allows users to scale up or down their usage depending on their changing business requirements, and avoid paying for idle or unused capacity. Pay-as-you-go pricing also enables users to benefit from the economies of scale and lower costs of AWS as they grow their business⁵

QUESTION 17

What does the Amazon S3 Intelligent-Tiering storage class offer?

- A. Payment flexibility by reserving storage capacity
- B. Long-term retention of data by copying the data to an encrypted Amazon Elastic Block Store (Amazon EBS) volume

- C. Automatic cost savings by moving objects between tiers based on access pattern changes
- D. Secure, durable, and lowest cost storage for data archival

Correct Answer: C

Section:

Explanation:

The Amazon S3 Intelligent-Tiering storage class offers automatic cost savings by moving objects between tiers based on access pattern changes. This storage class is designed for data with unknown or changing access patterns. It has two access tiers: frequent access and infrequent access. Objects are stored in the frequent access tier by default, and are moved to the infrequent access tier after 30 consecutive days of no access. If an object in the infrequent access tier is accessed, it is moved back to the frequent access tier. There are no retrieval fees in S3 Intelligent-Tiering, and no additional tiering fees when objects are moved between access tiers within the S3 Intelligent-Tiering storage class¹.

QUESTION 18

Which AWS service gives users the ability to provision a dedicated and private network connection from their internal network to AWS?

- A. AWS CloudHSM
- B. AWS Direct Connect
- C. AWS VPN
- D. Amazon Connect

Correct Answer: B

Section:

Explanation:

AWS Direct Connect gives users the ability to provision a dedicated and private network connection from their internal network to AWS. AWS Direct Connect links the user's internal network to an AWS Direct Connect location over a standard Ethernet fiber-optic cable. One end of the cable is connected to the user's router, the other to an AWS Direct Connect router. With this connection in place, the user can create virtual interfaces directly to the AWS cloud and Amazon Virtual Private Cloud (Amazon VPC), bypassing internet service providers in the network path².

QUESTION 19

A company is hosting a web application in a Docker container on Amazon EC2. AWS is responsible for which of the following tasks?

- A. Scaling the web application and services developed with Docker
- B. Provisioning or scheduling containers to run on clusters and maintain their availability
- C. Performing hardware maintenance in the AWS facilities that run the AWS Cloud
- D. Managing the guest operating system, including updates and security patches

Correct Answer: C

Section:

Explanation:

AWS is responsible for performing hardware maintenance in the AWS facilities that run the AWS Cloud. This is part of the shared responsibility model, where AWS is responsible for the security of the cloud, and the customer is responsible for security in the cloud. AWS is also responsible for the global infrastructure that runs all of the services offered in the AWS Cloud, including the hardware, software, networking, and facilities that run AWS Cloud services³. The customer is responsible for the guest operating system, including updates and security patches, as well as the web application and services developed with Docker⁴.

QUESTION 20

Which design principle should be considered when architecting in the AWS Cloud?

- A. Think of servers as non-disposable resources.
- B. Use synchronous integration of services.
- C. Design loosely coupled components.

D. Implement the least permissive rules for security groups.

Correct Answer: C

Section:

Explanation:

Designing loosely coupled components is a design principle that should be considered when architecting in the AWS Cloud. Loose coupling is a way of designing systems to reduce interdependencies and minimize the impact of changes. Loose coupling allows components to interact with each other through well-defined interfaces, rather than direct references. This reduces the risk of failures and errors propagating across the system, and enables greater scalability, availability, and maintainability.

QUESTION 21

Which AWS service or tool helps to centrally manage billing and allow controlled access to resources across AWS accounts?

- A. AWS Identity and Access Management (IAM)
- B. AWS Organizations
- C. AWS Cost Explorer
- D. AWS Budgets

Correct Answer: B

Section:

Explanation:

AWS Organizations helps to centrally manage billing and allow controlled access to resources across AWS accounts. AWS Organizations is a service that enables the user to consolidate multiple AWS accounts into an organization that can be managed as a single unit. AWS Organizations allows the user to create groups of accounts and apply policies to them, such as service control policies (SCPs) that specify the services and actions that users and roles can access in the accounts. AWS Organizations also enables the user to use consolidated billing, which combines the usage and charges from all the accounts in the organization into a single bill.

QUESTION 22

Which AWS service or feature can be used to estimate costs before deployment?

- A. AWS Free Tier
- B. AWS Pricing Calculator
- C. AWS Billing and Cost Management
- D. AWS Cost and Usage Report

Correct Answer: B

Section:

Explanation:

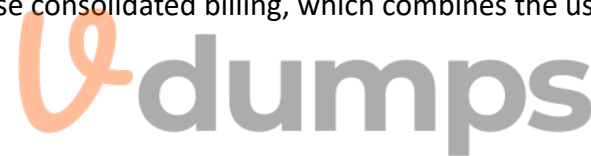
AWS Pricing Calculator can be used to estimate costs before deployment. AWS Pricing Calculator is a tool that helps the user to compare the cost of AWS services for different use cases and configurations. The user can create estimates for various AWS services, such as Amazon EC2, Amazon S3, Amazon RDS, and more. The user can also adjust the parameters, such as region, instance type, storage size, and duration, to see how they affect the cost. AWS Pricing Calculator provides a detailed breakdown of the estimated cost, as well as a summary of the key drivers of the cost.

QUESTION 23

Which of the following promotes AWS Cloud architectural best practices for designing and operating reliable, secure, efficient, and cost-effective systems?

- A. AWS Serverless Application Model framework
- B. AWS Business Support
- C. Principle of least privilege
- D. AWS Well-Architected Framework

Correct Answer: D



Section:

Explanation:

AWS Well-Architected Framework promotes AWS Cloud architectural best practices for designing and operating reliable, secure, efficient, and cost-effective systems. AWS Well-Architected Framework is a set of guidelines and best practices that help the user to evaluate and improve the architecture of their applications and workloads on AWS. AWS Well-Architected Framework consists of five pillars: operational excellence, security, reliability, performance efficiency, and cost optimization. Each pillar provides a set of design principles, questions, and best practices that help the user to achieve the desired outcomes for their systems.

QUESTION 24

A company has refined its workload to use specific AWS services to improve efficiency and reduce cost. Which task is a customer's responsibility, according to the AWS shared responsibility model?

- A. Management of the guest operating systems
- B. Maintenance of the configuration of infrastructure devices
- C. Management of the host operating systems and virtualization
- D. Maintenance of the software that powers Availability Zones

Correct Answer: A

Section:

Explanation:

Management of the guest operating systems is a customer's responsibility, according to the AWS shared responsibility model. The AWS shared responsibility model defines the different security and compliance responsibilities of AWS and the customer. AWS is responsible for the security of the cloud, which includes the physical infrastructure, hardware, software, and facilities that run the AWS Cloud. The customer is responsible for security in the cloud, which includes the configuration and management of the guest operating systems, applications, data, and network traffic protection

QUESTION 25

Which best practice for cost governance does this example show?

- A. Resource controls
- B. Cost allocation
- C. Architecture optimization
- D. Tagging enforcement

Correct Answer: C

Section:

Explanation:

Architecture optimization is the best practice for cost governance that this example shows.

Architecture optimization is the process of designing and implementing AWS solutions that are efficient, scalable, and cost-effective. By using specific AWS services to improve efficiency and reduce cost, the company is following the architecture optimization best practice. Some of the techniques for architecture optimization include using the right size and type of resources, leveraging elasticity and scalability, choosing the most suitable storage class, and using serverless and managed services2.

QUESTION 26

Which activity can companies complete by using AWS Organizations?

- A. Troubleshoot the performance of applications.
- B. Manage service control policies (SCPs).
- C. Migrate applications to microservices.
- D. Monitor the performance of applications.

Correct Answer: B

Section:



Explanation:

Managing service control policies (SCPs) is an activity that companies can complete by using AWS Organizations. AWS Organizations is a service that enables the user to consolidate multiple AWS accounts into an organization that can be managed as a single unit. AWS Organizations allows the user to create groups of accounts and apply policies to them, such as service control policies (SCPs) that specify the services and actions that users and roles can access in the accounts. AWS Organizations also enables the user to use consolidated billing, which combines the usage and charges from all the accounts in the organization into a single bill³.

QUESTION 27

Which AWS service or feature is used to send both text and email messages from distributed applications?

- A. Amazon Simple Notification Service (Amazon SNS)
- B. Amazon Simple Email Service (Amazon SES)
- C. Amazon CloudWatch alerts
- D. Amazon Simple Queue Service (Amazon SQS)

Correct Answer: A

Section:

Explanation:

Amazon Simple Notification Service (Amazon SNS) is the AWS service or feature that is used to send both text and email messages from distributed applications. Amazon SNS is a fully managed pub/sub messaging service that enables the user to send messages to multiple subscribers or endpoints, such as email addresses, phone numbers, HTTP endpoints, AWS Lambda functions, and more. Amazon SNS can be used to send notifications, alerts, confirmations, and reminders from applications to users or other applications⁴.

QUESTION 28

Which of the following is a benefit of decoupling an AWS Cloud architecture?

- A. Reduced latency
- B. Ability to upgrade components independently
- C. Decreased costs
- D. Fewer components to manage



Correct Answer: B

Section:

Explanation:

A benefit of decoupling an AWS Cloud architecture is the ability to upgrade components independently. Decoupling is a way of designing systems to reduce interdependencies and minimize the impact of changes. Decoupling allows components to interact with each other through well-defined interfaces, rather than direct references. This reduces the risk of failures and errors propagating across the system, and enables greater scalability, availability, and maintainability. By decoupling an AWS Cloud architecture, the user can upgrade or modify one component without affecting the other components⁵.

QUESTION 29

Which of the following describes an AWS Region?

- A. A specific location within a geographic area that provides high availability
- B. A set of data centers spanning multiple countries
- C. A global picture of a user's cloud computing environment
- D. A collection of databases that can be accessed from a specific geographic area only

Correct Answer: A

Section:

Explanation:

An AWS Region is a specific location within a geographic area that provides high availability. An AWS Region consists of two or more Availability Zones, which are isolated locations within the same Region. Each Availability Zone has independent power, cooling, and physical security, and is connected to the other Availability Zones in the same Region by low-latency, high-throughput, and highly redundant networking. AWS services are available

in multiple Regions around the world, allowing the user to choose where to run their applications and store their data1.

QUESTION 30

A retail company is building a new mobile app. The company is evaluating whether to build the app at an on-premises data center or in the AWS Cloud. responsibility model?

- A. Amazon FSx for Windows File Server
- B. Amazon Workspaces virtual Windows desktop
- C. AWS Directory Service for Microsoft Active Directory
- D. Amazon RDS for Microsoft SQL Server

Correct Answer: C

Section:

Explanation:

AWS Directory Service for Microsoft Active Directory is the AWS service that provides a managed Microsoft Active Directory in the AWS Cloud. It enables the user to use their existing Active Directory users, groups, and policies to access AWS resources, such as Amazon EC2 instances, Amazon S3 buckets, and AWS Single Sign-On. It also integrates with other Microsoft applications and services, such as Microsoft SQL Server, Microsoft Office 365, and Microsoft SharePoint

QUESTION 31

Which AWS service should a cloud practitioner use to receive real-time guidance for provisioning resources, based on AWS best practices related to security, cost optimization, and service limits?

- A. AWS Trusted Advisor
- B. AWS Config
- C. AWS Security Hub
- D. AWS Systems Manager

Correct Answer: A

Section:

Explanation:

AWS Trusted Advisor is the AWS service that provides real-time guidance for provisioning resources, based on AWS best practices related to security, cost optimization, and service limits. AWS Trusted Advisor inspects the user's AWS environment and provides recommendations for improving performance, security, and reliability, reducing costs, and following best practices. AWS Trusted Advisor also alerts the user when they are approaching or exceeding their service limits, and helps them request limit increases3.

QUESTION 32

Which of the following are advantages of moving to the AWS Cloud? (Select TWO.)

- A. The ability to turn over the responsibility for all security to AWS.
- B. The ability to use the pay-as-you-go model.
- C. The ability to have full control over the physical infrastructure.
- D. No longer having to guess what capacity will be required.
- E. No longer worrying about users access controls.

Correct Answer: B, D

Section:

Explanation:

The advantages of moving to the AWS Cloud are the ability to use the pay-as-you-go model and no longer having to guess what capacity will be required. The pay-as-you-go model allows the user to pay only for the resources they use, without any upfront or long-term commitments. This reduces the cost and risk of over-provisioning or under-provisioning resources. No longer having to guess what capacity will be required means that the user can scale their resources up or down according to the demand, without wasting money on idle resources or losing customers due to insufficient capacity4.



QUESTION 33

A company is migrating a relational database server to the AWS Cloud. The company wants to minimize administrative overhead of database maintenance tasks. Which AWS service will meet these requirements?

- A. Amazon DynamoDB
- B. Amazon EC2
- C. Amazon Redshift
- D. Amazon RDS

Correct Answer: D

Section:

Explanation:

Amazon RDS is the AWS service that will meet the requirements of migrating a relational database server to the AWS Cloud and minimizing administrative overhead of database maintenance tasks.

Amazon RDS is a fully managed relational database service that handles routine database tasks, such as provisioning, patching, backup, recovery, failure detection, and repair. Amazon RDS supports several database engines, such as MySQL, PostgreSQL, Oracle, SQL Server, and Amazon Aurora5.

QUESTION 34

A company is reviewing its operating policies.

Which policy complies with guidance in the security pillar of the AWS Well-Architected Framework?

- A. Ensure that employees have access to all company data.
- B. Expand employees' permissions as they gain more experience.
- C. Grant all privileges and access to all users.
- D. Apply security requirements at all layers of a process.

Correct Answer: D

Section:

Explanation:

Applying security requirements at all layers of a process is a policy that complies with guidance in the security pillar of the AWS Well-Architected Framework. The security pillar of the AWS Well-Architected Framework provides best practices for securing the user's data and systems in the AWS Cloud. One of the design principles of the security pillar is to apply security at all layers, which means that the user should implement defense-in-depth strategies and avoid relying on a single security mechanism. For example, the user should use multiple security controls, such as encryption, firewalls, identity and access management, and logging and monitoring, to protect their data and resources at different layers.

QUESTION 35

Which task is the responsibility of a company that is using Amazon RDS?

- A. Provision the underlying infrastructure.
- B. Create IAM policies to control administrative access to the service.
- C. Install the cables to connect the hardware for compute and storage.
- D. Install and patch the RDS operating system.

Correct Answer: B

Section:

Explanation:

The correct answer is B because AWS IAM policies can be used to control administrative access to the Amazon RDS service. The other options are incorrect because they are the responsibilities of AWS, not the company that is using Amazon RDS. AWS manages the provisioning, cabling, installation, and patching of the underlying infrastructure for Amazon RDS. Reference: Amazon RDS FAQs

QUESTION 36

A company is designing an identity access management solution for an application. The company wants users to be able to use their social media, email, or online shopping accounts to access the application. Which AWS service provides this functionality?

- A. AWS IAM Identity Center (AWS Single Sign-On)
- B. AWS Config
- C. Amazon Cognito
- D. AWS Identity and Access Management (IAM)

Correct Answer: C

Section:

Explanation:

The correct answer is C because Amazon Cognito provides identity federation and user authentication for web and mobile applications. Amazon Cognito allows users to sign in with their social media, email, or online shopping accounts. The other options are incorrect because they do not provide identity federation or user authentication. AWS IAM Identity Center (AWS Single Sign-On) is a service that enables users to access multiple AWS accounts and applications with a single sign-on experience. AWS Config is a service that enables users to assess, audit, and evaluate the configurations of their AWS resources. AWS Identity and Access Management (IAM) is a service that enables users to manage access to AWS resources using users, groups, roles, and policies.

Reference: Amazon Cognito FAQs

QUESTION 37

Which AWS service aggregates, organizes, and prioritizes security alerts and findings from multiple AWS services?

- A. Amazon Detective
- B. Amazon Inspector
- C. Amazon Macie
- D. AWS Security Hub

Correct Answer: D

Section:

Explanation:

The correct answer is D because AWS Security Hub is a service that aggregates, organizes, and prioritizes security alerts and findings from multiple AWS services, such as Amazon GuardDuty, Amazon Inspector, Amazon Macie, AWS Firewall Manager, and AWS IAM Access Analyzer. The other options are incorrect because they are not services that aggregate security alerts and findings from multiple AWS services. Amazon Detective is a service that helps users analyze and visualize security data to investigate and remediate potential issues. Amazon Inspector is a service that helps users find security vulnerabilities and deviations from best practices in their Amazon EC2 instances.

Amazon Macie is a service that helps users discover, classify, and protect sensitive data stored in Amazon S3. Reference: AWS Security Hub FAQs

QUESTION 38

Which of the following are advantages of the AWS Cloud? (Select TWO.)

- A. Trade variable expenses for capital expenses
- B. High economies of scale
- C. Launch globally in minutes
- D. Focus on managing hardware infrastructure
- E. Overprovision to ensure capacity

Correct Answer: B, C

Section:

Explanation:

The correct answers are B and C because they are advantages of the AWS Cloud. High economies of scale means that AWS can achieve lower variable costs than customers can get on their own. Launch globally in minutes means that AWS has a global infrastructure that allows customers to deploy their applications and data across multiple regions and availability zones. The other options are incorrect because they are not advantages of the



AWS Cloud. Trade variable expenses for capital expenses means that customers have to invest heavily in data centers and servers before they know how they will use them. Focus on managing hardware infrastructure means that customers have to spend time and money on maintaining and upgrading their physical resources. Overprovision to ensure capacity means that customers have to pay for more resources than they actually need to avoid performance issues. Reference: What is Cloud Computing?

QUESTION 39

Which AWS service is a key-value database that provides sub-millisecond latency on a large scale?

- A. Amazon DynamoDB
- B. Amazon Aurora
- C. Amazon DocumentDB (with MongoDB compatibility)
- D. Amazon Neptune

Correct Answer: A

Section:

Explanation:

The correct answer is A because Amazon DynamoDB is a key-value database that provides submillisecond latency on a large scale. Amazon DynamoDB is a fully managed, serverless, and scalable NoSQL database service that supports both key-value and document data models. The other options are incorrect because they are not key-value databases. Amazon Aurora is a relational database that is compatible with MySQL and PostgreSQL. Amazon DocumentDB (with MongoDB compatibility) is a document database that is compatible with MongoDB. Amazon Neptune is a graph database that supports property graph and RDF models. Reference: Amazon DynamoDB FAQs

QUESTION 40

Which AWS service or tool provides users with the ability to monitor AWS service quotas?

- A. AWS CloudTrail
- B. AWS Cost and Usage Reports
- C. AWS Trusted Advisor
- D. AWS Budgets



Correct Answer: C

Section:

Explanation:

The correct answer is C because AWS Trusted Advisor is an AWS service or tool that provides users with the ability to monitor AWS service quotas. AWS Trusted Advisor is an online tool that provides users with real-time guidance to help them provision their resources following AWS best practices.

One of the categories of checks that AWS Trusted Advisor performs is service limits, which monitors the usage of each AWS service and alerts users when they are close to reaching the default limit. The other options are incorrect because they are not AWS services or tools that provide users with the ability to monitor AWS service quotas. AWS CloudTrail is a service that enables users to track user activity and API usage across their AWS account. AWS Cost and Usage Reports is a tool that enables users to access comprehensive information about their AWS costs and usage. AWS Budgets is a tool that enables users to plan their service usage, costs, and reservations. Reference: [AWS Trusted Advisor FAQs]

QUESTION 41

Which of the following is an advantage of AWS Cloud computing?

- A. Trade security for elasticity.
- B. Trade operational excellence for agility.
- C. Trade fixed expenses for variable expenses.
- D. Trade elasticity for performance.

Correct Answer: C

Section:

Explanation:

The correct answer is C because AWS Cloud computing allows customers to trade fixed expenses for variable expenses. This means that customers only pay for the resources they use, and can scale up or down as needed. The other options are incorrect because they are not advantages of AWS Cloud computing. Trade security for elasticity means that customers have to compromise on the protection of their data and applications in order to adjust their capacity quickly. Trade operational excellence for agility means that customers have to sacrifice the quality and reliability of their operations in order to respond to changing needs faster. Trade elasticity for performance means that customers have to limit their ability to scale up or down in order to achieve higher speed and efficiency.

Reference: What is Cloud Computing?

QUESTION 42

A company is running applications on Amazon EC2 instances in the same AWS account for several different projects. The company wants to track the infrastructure costs for each of the projects separately. The company must conduct this tracking with the least possible impact to the existing infrastructure and with no additional cost.

What should the company do to meet these requirements?

- A. Use a different EC2 instance type for each project.
- B. Publish project-specific custom Amazon CloudWatch metrics for each application.
- C. Deploy EC2 instances for each project in a separate AWS account.
- D. Use cost allocation tags with values that are specific to each project.

Correct Answer: D

Section:

Explanation:

The correct answer is D because cost allocation tags are a way to track the infrastructure costs for each of the projects separately. Cost allocation tags are key-value pairs that can be attached to AWS resources, such as EC2 instances, and used to categorize and group them for billing purposes. The other options are incorrect because they do not meet the requirements of the question. Use a different EC2 instance type for each project does not help to track the costs for each project, and may impact the performance and compatibility of the applications. Publish project-specific custom Amazon CloudWatch metrics for each application does not help to track the costs for each project, and may incur additional charges for using CloudWatch. Deploy EC2 instances for each project in a separate AWS account does help to track the costs for each project, but it impacts the existing infrastructure and incurs additional charges for using multiple accounts. Reference: Using Cost Allocation Tags

QUESTION 43

A company has an online shopping website and wants to store customers' credit card data. The company must meet Payment Card Industry (PCI) standards.

Which service can the company use to access AWS compliance documentation?

- A. Amazon Cloud Directory
- B. AWS Artifact
- C. AWS Trusted Advisor
- D. Amazon Inspector

Correct Answer: B

Section:

Explanation:

The correct answer is B because AWS Artifact is a service that provides access to AWS compliance documentation, such as audit reports, security certifications, and agreements. AWS Artifact allows customers to download, review, and accept the documents that are relevant to their use of AWS services. The other options are incorrect because they are not services that provide access to AWS compliance documentation. Amazon Cloud Directory is a service that enables customers to create flexible cloud-native directories for organizing hierarchies of data. AWS Trusted Advisor is a service that provides real-time guidance to help customers follow AWS best practices for security, performance, cost optimization, and fault tolerance. Amazon Inspector is a service that helps customers find security vulnerabilities and deviations from best practices in their Amazon EC2 instances. Reference: [AWS Artifact FAQs]

QUESTION 44

Which of the following are components of an AWS Site-to-Site VPN connection? (Select TWO.)

- A. AWS Storage Gateway

- B. Virtual private gateway
- C. NAT gateway
- D. Customer gateway
- E. Internet gateway

Correct Answer: B, D

Section:

Explanation:

The correct answers are B and D because a virtual private gateway and a customer gateway are components of an AWS Site-to-Site VPN connection. A virtual private gateway is the AWS side of the VPN connection that attaches to the customer's VPC. A customer gateway is the customer side of the VPN connection that resides in the customer's network. The other options are incorrect because they are not components of an AWS Site-to-Site VPN connection. AWS Storage Gateway is a service that connects on-premises software applications with cloud-based storage. NAT gateway is a service that enables instances in a private subnet to connect to the internet or other AWS services, but prevents the internet from initiating a connection with those instances. Internet gateway is a service that enables communication between instances in a VPC and the internet. Reference: [What is AWS Site-to-Site VPN?]

QUESTION 45

A company runs thousands of simultaneous simulations using AWS Batch. Each simulation is stateless, is fault tolerant, and runs for up to 3 hours. Which pricing model enables the company to optimize costs and meet these requirements?

- A. Reserved Instances
- B. Spot Instances
- C. On-Demand Instances
- D. Dedicated Instances

Correct Answer: B

Section:

Explanation:

The correct answer is B because Spot Instances enable the company to optimize costs and meet the requirements. Spot Instances are spare EC2 instances that are available at up to 90% discount compared to On-Demand prices. Spot Instances are suitable for stateless, fault-tolerant, and flexible applications that can run for any duration. The other options are incorrect because they do not enable the company to optimize costs and meet the requirements. Reserved Instances are EC2 instances that are reserved for a specific period of time (one or three years) in exchange for a lower hourly rate. Reserved Instances are suitable for steady-state or predictable workloads that run for a long duration. On-Demand Instances are EC2 instances that are launched and billed at a fixed hourly rate. On-Demand Instances are suitable for short-term, irregular, or unpredictable workloads that cannot be interrupted. Dedicated Instances are EC2 instances that run on hardware that is dedicated to a single customer. Dedicated Instances are suitable for workloads that require regulatory compliance or data isolation. Reference: [Amazon EC2 Instance Purchasing Options]

QUESTION 46

A company has an application with robust hardware requirements. The application must be accessed by students who are using lightweight, low-cost laptops. Which AWS service will help the company deploy the application without investing in backend infrastructure or high end client hardware?

- A. Amazon AppStream 2.0
- B. AWS AppSync
- C. Amazon WorkLink
- D. AWS Elastic Beanstalk

Correct Answer: A

Section:

Explanation:

The correct answer is A because Amazon AppStream 2.0 is a service that will help the company deploy the application without investing in backend infrastructure or high end client hardware. Amazon AppStream 2.0 is a fully managed, secure application streaming service that allows customers to stream desktop applications from AWS to any device running a web browser. Amazon AppStream 2.0 handles the provisioning, scaling, patching, and maintenance of the backend infrastructure, and delivers high performance and responsive user experience. The other options are incorrect because they are not services that will help the



company deploy the application without investing in backend infrastructure or high end client hardware. AWS AppSync is a service that enables customers to create flexible APIs for synchronizing data across multiple data sources.

Amazon WorkLink is a service that enables customers to provide secure, one-click access to internal websites and web apps from mobile devices. AWS Elastic Beanstalk is a service that enables customers to deploy and manage web applications using popular platforms such as Java, .NET, PHP, and Node.js. Reference: [Amazon AppStream 2.0 FAQs]

QUESTION 47

Which AWS service will help a company identify the user who deleted an Amazon EC2 instance yesterday?

- A. Amazon CloudWatch
- B. AWS Trusted Advisor
- C. AWS CloudTrail
- D. Amazon Inspector

Correct Answer: C

Section:

Explanation:

The correct answer is C because AWS CloudTrail is a service that will help a company identify the user who deleted an Amazon EC2 instance yesterday. AWS CloudTrail is a service that enables users to track user activity and API usage across their AWS account. AWS CloudTrail records the details of every API call made to AWS services, such as the identity of the caller, the time of the call, the source IP address of the caller, the parameters and responses of the call, and more. Users can use AWS CloudTrail to audit, monitor, and troubleshoot their AWS resources and actions. The other options are incorrect because they are not services that will help a company identify the user who deleted an Amazon EC2 instance yesterday. Amazon CloudWatch is a service that enables users to collect, analyze, and visualize metrics, logs, and events from their AWS resources and applications. AWS Trusted Advisor is a service that provides real-time guidance to help users follow AWS best practices for security, performance, cost optimization, and fault tolerance. Amazon Inspector is a service that helps users find security vulnerabilities and deviations from best practices in their Amazon EC2 instances. Reference: AWS CloudTrail FAQs

QUESTION 48

Which AWS database service provides in-memory data storage?

- A. Amazon DynamoDB
- B. Amazon ElastiCache
- C. Amazon RDS
- D. Amazon Timestream

Correct Answer: B

Section:

Explanation:

The correct answer is B because Amazon ElastiCache is a service that provides in-memory data storage. Amazon ElastiCache is a fully managed, scalable, and high-performance service that supports two popular open-source in-memory engines: Redis and Memcached. Amazon ElastiCache allows users to store and retrieve data from fast, low-latency, and high-throughput in-memory systems. Users can use Amazon ElastiCache to improve the performance of their applications by caching frequently accessed data, reducing database load, and enabling real-time data processing.

The other options are incorrect because they are not services that provide in-memory data storage.

Amazon DynamoDB is a service that provides key-value and document data storage. Amazon RDS is a service that provides relational data storage. Amazon Timestream is a service that provides time series data storage.

Reference: Amazon ElastiCache FAQs

QUESTION 49

Which of the following acts as an instance-level firewall to control inbound and outbound access?

- A. Network access control list
- B. Security groups
- C. AWS Trusted Advisor
- D. Virtual private gateways



Correct Answer: B

Section:

Explanation:

The correct answer is B because security groups are AWS features that act as instance-level firewalls to control inbound and outbound access. Security groups are virtual firewalls that can be attached to one or more Amazon EC2 instances. Users can configure rules for security groups to allow or deny traffic based on protocols, ports, and source or destination IP addresses. The other options are incorrect because they are not AWS features that act as instance-level firewalls to control inbound and outbound access. Network access control list is an AWS feature that acts as a subnet-level firewall to control inbound and outbound access. AWS Trusted Advisor is an AWS service that provides real-time guidance to help users follow AWS best practices for security, performance, cost optimization, and fault tolerance. Virtual private gateways are AWS features that enable users to create a secure and encrypted connection between their VPC and their on-premises network.

Reference: Security Groups for Your VPC

QUESTION 50

A company has an application that uses AWS services. During scaling events, the company wants to keep application usage within AWS service quotas. Which AWS services or tools can report on the quotas so that the company can improve the reliability of the application? (Select TWO.)

- A. Service Quotas console
- B. AWS Trusted Advisor
- C. AWS Systems Manager
- D. AWS Shield
- E. AWS Cost Explorer

Correct Answer: A, B

Section:

Explanation:

The correct answers are A and B because Service Quotas console and AWS Trusted Advisor are AWS services or tools that can report on the quotas so that the company can improve the reliability of the application. Service Quotas console is an AWS tool that enables users to view and manage their quotas for AWS services from a central location. Users can use Service Quotas console to request quota increases, track quota usage, and set up alarms for approaching quota limits. AWS Trusted Advisor is an AWS service that provides real-time guidance to help users follow AWS best practices for security, performance, cost optimization, and fault tolerance. One of the categories of checks that AWS Trusted Advisor performs is service limits, which monitors the usage of each AWS service and alerts users when they are close to reaching the default limit. The other options are incorrect because they are not AWS services or tools that can report on the quotas so that the company can improve the reliability of the application. AWS Systems Manager is an AWS service that enables users to automate operational tasks, manage configuration and compliance, and monitor system health and performance. AWS Shield is an AWS service that protects users from distributed denial of service (DDoS) attacks. AWS Cost Explorer is an AWS tool that enables users to visualize, understand, and manage their AWS costs and usage. Reference: Service Quotas, AWS Trusted Advisor FAQs

QUESTION 51

Which of the following are AWS Cloud design principles? (Select TWO.)

- A. Pay for compute resources in advance.
- B. Make data-driven decisions to determine cloud architectural design.
- C. Emphasize manual processes to allow for changes.
- D. Test systems at production scale.
- E. Refine operational procedures infrequently.

Correct Answer: B, D

Section:

Explanation:

The correct answers are B and D because making data-driven decisions to determine cloud architectural design and testing systems at production scale are AWS Cloud design principles. Making data-driven decisions to determine cloud architectural design means that users should collect and analyze data from their AWS resources and applications to optimize their performance, availability, security, and cost. Testing systems at production scale means that users should simulate real-world scenarios and load conditions to validate the functionality, reliability, and scalability of their systems.

The other options are incorrect because they are not AWS Cloud design principles. Paying for compute resources in advance means that users have to invest heavily in data centers and servers before they know how they will use them. This is not a cloud design principle, but rather a traditional IT model. Emphasizing manual processes to allow for changes means that users have to rely on human intervention and coordination to perform

operational tasks and updates. This is not a cloud design principle, but rather a source of inefficiency and error. Refining operational procedures infrequently means that users have to stick to the same methods and practices without adapting to the changing needs and feedback. This is not a cloud design principle, but rather a hindrance to innovation and improvement. Reference: AWS Well-Architected Framework

QUESTION 52

A company needs to migrate all of its development teams to a cloud-based integrated development environment (IDE). Which AWS service should the company use?

- A. AWS CodeBuild
- B. AWS Cloud9
- C. AWS OpsWorks
- D. AWS Cloud Development Kit (AWS CDK)

Correct Answer: B

Section:

Explanation:

The correct answer is B because AWS Cloud9 is an AWS service that enables users to run their existing custom, nonproduction workloads in the AWS Cloud quickly and cost-effectively. AWS Cloud9 is a cloud-based integrated development environment (IDE) that allows users to write, run, and debug code from a web browser. AWS Cloud9 supports multiple programming languages, such as Python, Java, Node.js, and more. AWS Cloud9 also provides users with a terminal that can access AWS services and resources, such as Amazon EC2 instances, AWS Lambda functions, and AWS CloudFormation stacks. The other options are incorrect because they are not AWS services that enable users to run their existing custom, nonproduction workloads in the AWS Cloud quickly and cost-effectively. AWS CodeBuild is an AWS service that enables users to compile, test, and package their code for deployment. AWS OpsWorks is an AWS service that enables users to configure and manage their applications using Chef or Puppet. AWS Cloud Development Kit (AWS CDK) is an AWS service that enables users to define and provision their cloud infrastructure using familiar programming languages, such as TypeScript, Python, Java, and C#. Reference: AWS Cloud9 FAQs

QUESTION 53

A company needs to run its existing custom, nonproduction workloads in the AWS Cloud quickly and cost-effectively. The workloads can recover from interruptions easily. Which pricing model should the company use?

- A. Reserved Instances
- B. On-Demand Instances
- C. Spot Instances
- D. Dedicated Hosts

Correct Answer: C

Section:

Explanation:

The correct answer is C because Spot Instances are the pricing model that enables the company to run its existing custom, nonproduction workloads in the AWS Cloud quickly and cost-effectively. Spot Instances are spare Amazon EC2 instances that are available at up to 90% discount compared to On-Demand prices. Spot Instances are suitable for stateless, fault-tolerant, and flexible workloads that can recover from interruptions easily. The other options are incorrect because they are not the pricing model that enables the company to run its existing custom, nonproduction workloads in the AWS Cloud quickly and cost-effectively. Reserved Instances are Amazon EC2 instances that are reserved for a specific period of time (one or three years) in exchange for a lower hourly rate.

Reserved Instances are suitable for steady-state or predictable workloads that run for a long duration. On-Demand Instances are Amazon EC2 instances that are launched and billed at a fixed hourly rate. On-Demand Instances are suitable for short-term, irregular, or unpredictable workloads that cannot be interrupted. Dedicated Hosts are physical servers that are dedicated to a single customer. Dedicated Hosts are suitable for workloads that require regulatory compliance or data isolation. Reference: Amazon EC2 Instance Purchasing Options

QUESTION 54

Which AWS features will meet these requirements? (Select TWO.)

- A. Security groups
- B. Network ACLs

- C. S3 bucket policies
- D. IAM user policies
- E. S3 bucket versioning

Correct Answer: C, D

Section:

Explanation:

The correct answers are C and D because S3 bucket policies and IAM user policies are AWS features that will meet the requirements. S3 bucket policies are access policies that can be attached to Amazon S3 buckets to grant or deny permissions to the bucket and the objects it contains. S3 bucket policies can be used to control who has permission to read, write, or delete objects that the company stores in the S3 bucket. IAM user policies are access policies that can be attached to IAM users to grant or deny permissions to AWS resources and actions. IAM user policies can be used to control who has permission to read, write, or delete objects that the company stores in the S3 bucket. The other options are incorrect because they are not AWS features that will meet the requirements.

Security groups and network ACLs are AWS features that act as firewalls to control inbound and outbound traffic to and from Amazon EC2 instances and subnets. Security groups and network ACLs do not control who has permission to read, write, or delete objects that the company stores in the S3 bucket. S3 bucket versioning is an AWS feature that enables users to keep multiple versions of the same object in the same bucket. S3 bucket versioning can be used to recover from accidental overwrites or deletions of objects, but it does not control who has permission to read, write, or delete objects that the company stores in the S3 bucket. Reference: Using Bucket Policies and User Policies, Security Groups for Your VPC, Network ACLs, [Using Versioning]

QUESTION 55

Which of the following is a recommended design principle of the AWS Well-Architected Framework?

- A. Reduce downtime by making infrastructure changes infrequently and in large increments.
- B. Invest the time to configure infrastructure manually.
- C. Learn to improve from operational failures.
- D. Use monolithic application design for centralization.

Correct Answer: C

Section:

Explanation:

The correct answer is C because learning to improve from operational failures is a recommended design principle of the AWS Well-Architected Framework. The AWS Well-Architected Framework is a set of best practices and guidelines for designing and operating reliable, secure, efficient, and cost-effective systems in the cloud. The AWS Well-Architected Framework consists of five pillars: operational excellence, security, reliability, performance efficiency, and cost optimization. Each pillar has a set of design principles that describe the characteristics of a well-architected system. Learning to improve from operational failures is a design principle of the operational excellence pillar, which focuses on running and monitoring systems to deliver business value and continually improve supporting processes and procedures. The other options are incorrect because they are not recommended design principles of the AWS Well-Architected Framework. Reducing downtime by making infrastructure changes infrequently and in large increments is not a design principle of the AWS Well-Architected Framework, but rather a source of risk and inefficiency. A well-architected system should implement changes frequently and in small increments to minimize the impact and scope of failures. Investing the time to configure infrastructure manually is not a design principle of the AWS Well-Architected Framework, but rather a source of human error and inconsistency. A well-architected system should automate manual tasks to improve the speed and accuracy of operations.

Using monolithic application design for centralization is not a design principle of the AWS Well-Architected Framework, but rather a source of complexity and rigidity. A well-architected system should use loosely coupled and distributed components to enable scalability and resilience.

Reference: [AWS Well-Architected Framework]

QUESTION 56

A security engineer wants a single-tenant AWS solution to create, control, and manage their own cryptographic keys to meet regulatory compliance requirements for data security. Which AWS service should the engineer use?

- A. AWS Key Management Service (AWS KMS)
- B. AWS Certificate Manager (ACM)
- C. AWS CloudHSM
- D. AWS Systems Manager



Correct Answer: C

Section:

Explanation:

The correct answer is C because AWS CloudHSM is an AWS service that enables the security engineer to meet the requirements. AWS CloudHSM is a service that provides customers with dedicated hardware security modules (HSMs) to create, control, and manage their own cryptographic keys in the AWS Cloud. AWS CloudHSM allows customers to meet strict regulatory compliance requirements for data security, such as FIPS 140-2 Level 3, PCI-DSS, and HIPAA. The other options are incorrect because they are not AWS services that enable the security engineer to meet the requirements. AWS Key Management Service (AWS KMS) is a service that provides customers with a fully managed, scalable, and integrated key management system to create and control encryption keys for AWS services and applications. AWS KMS does not provide customers with single-tenant or dedicated HSMs. AWS Certificate Manager (ACM) is a service that provides customers with a simple and secure way to provision, manage, and deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for use with AWS services and internal connected resources. ACM does not provide customers with HSMs or cryptographic keys. AWS Systems Manager is a service that provides customers with a unified user interface to view operational data from multiple AWS services and automate operational tasks across their AWS resources. AWS Systems Manager does not provide customers with HSMs or cryptographic keys.

Reference: AWS CloudHSM FAQs

QUESTION 57

Which tasks are the responsibility of AWS, according to the AWS shared responsibility model? (Select TWO.)

- A. Patch AWS network devices.
- B. Set user password rules.
- C. Provide physical security for compute resources.
- D. Configure security groups.
- E. Patch the operating system of an Amazon EC2 instance.

Correct Answer: A, C

Section:

Explanation:

The correct answers are A and C because patching AWS network devices and providing physical security for compute resources are tasks that are the responsibility of AWS, according to the AWS shared responsibility model. The AWS shared responsibility model is a framework that defines the division of responsibilities between AWS and the customer for security and compliance. AWS is responsible for the security of the cloud, which includes the global infrastructure, such as the regions, availability zones, and edge locations; the hardware, software, networking, and facilities that run the AWS services; and the virtualization layer that separates the customer instances and storage.

The customer is responsible for the security in the cloud, which includes the customer data, the guest operating systems, the applications, the identity and access management, the firewall configuration, and the encryption. The other options are incorrect because they are tasks that are the responsibility of the customer, according to the AWS shared responsibility model. Setting user password rules, configuring security groups, and patching the operating system of an Amazon EC2 instance are all tasks that the customer has to perform to secure their AWS environment. Reference: AWS Shared Responsibility Model

QUESTION 58

Which AWS service or feature captures information about the network traffic to and from an Amazon EC2 instance?

- A. VPC Reachability Analyzer
- B. Amazon Athena
- C. VPC Flow Logs
- D. AWS X-Ray

Correct Answer: C

Section:

Explanation:

The correct answer is C because VPC Flow Logs is an AWS service or feature that captures information about the network traffic to and from an Amazon EC2 instance. VPC Flow Logs is a feature that enables customers to capture information about the IP traffic going to and from network interfaces in their VPC. VPC Flow Logs can help customers to monitor and troubleshoot connectivity issues, such as traffic not reaching an instance or traffic being rejected by a security group. The other options are incorrect because they are not AWS services or features that capture information about the network traffic to and from an Amazon EC2 instance. VPC Reachability Analyzer is an AWS service or feature that enables customers to perform connectivity testing between resources in their VPC and identify configuration issues that prevent connectivity. Amazon Athena is an AWS service that enables customers to query data stored in Amazon S3 using standard SQL. AWS X-Ray is an AWS service that enables customers to analyze and debug distributed applications, such as those built using a microservices

architecture. Reference: VPC Flow Logs

QUESTION 59

Which of the following are pillars of the AWS Well-Architected Framework? (Select TWO.)

- A. Availability
- B. Reliability
- C. Scalability
- D. Responsive design
- E. Operational excellence

Correct Answer: B, E

Section:

Explanation:

The correct answers to the questions are B and E because reliability and operational excellence are pillars of the AWS Well-Architected Framework. The AWS Well-Architected Framework is a set of best practices and guidelines for designing and operating reliable, secure, efficient, and cost-effective systems in the cloud. The AWS Well-Architected Framework consists of five pillars: operational excellence, security, reliability, performance efficiency, and cost optimization. Each pillar has a set of design principles that describe the characteristics of a well-architected system. Reliability is the pillar that focuses on the ability of a system to recover from failures and meet business and customer demand. Operational excellence is the pillar that focuses on the ability of a system to run and monitor processes that support business outcomes and continually improve. The other options are incorrect because they are not pillars of the AWS Well-Architected Framework. Availability, scalability, and responsive design are important aspects of cloud architecture, but they are not separate pillars in the framework. Availability and scalability are related to the reliability and performance efficiency pillars, while responsive design is related to the customer experience and user interface. Reference: AWS Well-Architected Framework

QUESTION 60

Which tasks are customer responsibilities according to the AWS shared responsibility model? (Select TWO.)

- A. Determine application dependencies with operating systems.
- B. Provide user access with AWS Identity and Access Management (IAM).
- C. Secure the data center in an Availability Zone.
- D. Patch the hypervisor.
- E. Provide network availability in Availability Zones.

Correct Answer: B

Section:

Explanation:

The correct answer to the question is B because providing user access with AWS Identity and Access Management (IAM) is a customer responsibility according to the AWS shared responsibility model.

The AWS shared responsibility model is a framework that defines the division of responsibilities between AWS and the customer for security and compliance. AWS is responsible for the security of the cloud, which includes the global infrastructure, such as the regions, availability zones, and edge locations; the hardware, software, networking, and facilities that run the AWS services; and the virtualization layer that separates the customer instances and storage. The customer is responsible for the security in the cloud, which includes the customer data, the guest operating systems, the applications, the identity and access management, the firewall configuration, and the encryption.

IAM is an AWS service that enables customers to manage access and permissions to AWS resources and services. Customers are responsible for creating and managing IAM users, groups, roles, and policies, and ensuring that they follow the principle of least privilege. Reference: AWS Shared Responsibility Model

QUESTION 61

A user wants to identify any security group that is allowing unrestricted incoming SSH traffic. Which AWS service can be used to accomplish this goal?

- A. Amazon Cognito
- B. AWS Shield
- C. Amazon Macie

D. AWS Trusted Advisor

Correct Answer: D

Section:

Explanation:

The correct answer to the question is D because AWS Trusted Advisor is an AWS service that can be used to accomplish the goal of identifying any security group that is allowing unrestricted incoming SSH traffic. AWS Trusted Advisor is a service that provides customers with recommendations that help them follow AWS best practices. Trusted Advisor evaluates the customer's AWS environment and identifies ways to optimize their AWS infrastructure, improve security and performance, reduce costs, and monitor service quotas. One of the checks that Trusted Advisor performs is the Security Groups - Specific Ports Unrestricted check, which flags security groups that allow unrestricted access to specific ports, such as port 22 for SSH. Customers can use this check to review and modify their security group rules to restrict SSH access to only authorized sources. Reference: Security Groups -Specific Ports Unrestricted

QUESTION 62

Which AWS feature or resource is a deployable Amazon EC2 instance template that is prepackaged with software and security requirements?

- A. Amazon Elastic Block Store (Amazon EBS) volume
- B. AWS CloudFormation template
- C. Amazon Elastic Block Store (Amazon EBS) snapshot
- D. Amazon Machine Image (AMI)

Correct Answer: D

Section:

Explanation:

: An Amazon Machine Image (AMI) is a deployable Amazon EC2 instance template that is prepackaged with software and security requirements. It provides the information required to launch an instance, which is a virtual server in the cloud. You can use an AMI to launch as many instances as you need. You can also create your own custom AMIs or use AMIs shared by other AWS users¹.

QUESTION 63

Which AWS service is a highly available and scalable DNS web service?

- A. Amazon VPC
- B. Amazon CloudFront
- C. Amazon Route 53
- D. Amazon Connect

Correct Answer: C

Section:

Explanation:

Amazon Route 53 is a highly available and scalable DNS web service. It is designed to give developers and businesses an extremely reliable and cost-effective way to route end users to Internet applications by translating domain names into the numeric IP addresses that computers use to connect to each other². Amazon Route 53 also offers other features such as health checks, traffic management, domain name registration, and DNSSEC³.

QUESTION 64

Which of the following is a characteristic of the AWS account root user?

- A. The root user is the only user that can be configured with multi-factor authentication (MFA).
- B. The root user is the only user that can access the AWS Management Console.
- C. The root user is the first sign-in identity that is available when an AWS account is created.
- D. The root user has a password that cannot be changed.

Correct Answer: C

Section:

Explanation:

The AWS account root user is the first sign-in identity that is available when an AWS account is created. It has complete access to all AWS services and resources in the account. The root user email address and password are the same credentials that are used to sign in to the AWS Management Console⁴. The root user should be used only to perform a few account and service management tasks. For day-to-day tasks, it is recommended to use AWS Identity and Access Management (IAM) users or roles instead.

QUESTION 65

Which AWS service provides the ability to host a NoSQL database in the AWS Cloud?

- A. Amazon Aurora
- B. Amazon DynamoDB
- C. Amazon RDS
- D. Amazon Redshift

Correct Answer: B

Section:

Explanation:

Amazon DynamoDB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. It supports both key-value and document data models, and allows you to create tables that can store and retrieve any amount of data, and serve any level of request traffic. You can also use DynamoDB Streams to capture data modification events in DynamoDB tables.

QUESTION 66

What is the total amount of storage offered by Amazon S3?

- A. WOMB
- B. 5 GB
- C. 5 TB
- D. Unlimited

Correct Answer: D

Section:

Explanation:

Amazon S3 offers unlimited storage for any amount of data. You can store as many objects as you want, and each object can be as large as 5 terabytes. You pay only for the storage space that you actually use, and there are no minimum commitments or upfront fees. Amazon S3 also provides high durability, availability, scalability, and security for your data.

QUESTION 67

Which AWS network services or features allow CI DR block notation when providing an IP address range?

(Select TWO.)

- A. Security groups
- B. Amazon Machine Image (AMI)
- C. Network access control list (network ACL)
- D. AWS Budgets
- E. Amazon Elastic Block Store (Amazon EBS)

Correct Answer: A, C

Section:

Explanation:

Security groups and network access control lists (network ACLs) are two AWS network services or features that allow CIDR block notation when providing an IP address range. Security groups act as a firewall for associated



Amazon EC2 instances, controlling both inbound and outbound traffic at the instance level. Network ACLs act as a firewall for associated subnets, controlling both inbound and outbound traffic at the subnet level. Both security groups and network ACLs use CIDR block notation to specify the IP address ranges that are allowed or denied

QUESTION 68

A company has a workload that requires data to be collected, analyzed, and stored on premises. The company wants to extend the use of AWS services to run on premises with access to the company network and the company's VPC.

Which AWS service meets this requirement?

- A. AWS Outposts
- B. AWS Storage Gateway
- C. AWS Direct Connect
- D. AWS Snowball

Correct Answer: A

Section:

Explanation:

AWS Outposts is an AWS service that meets the requirement of running AWS services on premises with access to the company network and the company's VPC. AWS Outposts is a fully managed service that extends AWS infrastructure, AWS services, APIs, and tools to virtually any datacenter, colocation space, or on-premises facility for a truly consistent hybrid experience. AWS Outposts is ideal for workloads that require low latency access to on-premises systems, local data processing, or local data storage.

QUESTION 69

A company wants to deploy and manage a Docker-based application on AWS.

Which solution meets these requirements with the LEAST amount of operational overhead?

- A. An open-source Docker orchestrator on Amazon EC2 instances
- B. AWS AppSync
- C. Amazon Elastic Container Registry (Amazon ECR)
- D. Amazon Elastic Container Service (Amazon ECS)

Correct Answer: D

Section:

Explanation:

Amazon Elastic Container Service (Amazon ECS) is a solution that meets the requirements of deploying and managing a Docker-based application on AWS with the least amount of operational overhead. Amazon ECS is a fully managed container orchestration service that makes it easy to run, scale, and secure Docker container applications on AWS. Amazon ECS eliminates the need for you to install, operate, and scale your own cluster management infrastructure. With simple API calls, you can launch and stop container-enabled applications, query the complete state of your cluster, and access many familiar features like security groups, Elastic Load Balancing, EBS volumes, and IAM roles.

QUESTION 70

When designing AWS workloads to be operational even when there are component failures, what is an AWS best practice?

- A. Perform quarterly disaster recovery tests.
- B. Place the main component on the us-east-1 Region.
- C. Design for automatic failover to healthy resources.
- D. Design workloads to fit on a single Amazon EC2 instance.

Correct Answer: C

Section:

Explanation:

Designing for automatic failover to healthy resources is an AWS best practice when designing AWS workloads to be operational even when there are component failures. This means that you should architect your system to handle the loss of one or more components without impacting the availability or performance of your application. You can use various AWS services and features to achieve this, such as Auto Scaling, Elastic Load Balancing, Amazon Route 53, Amazon CloudFormation, and AWS CloudFormation4.

QUESTION 71

Which AWS service provides highly durable object storage?

- A. Amazon S3
- B. Amazon Elastic File System (Amazon EFS)
- C. Amazon Elastic Block Store (Amazon EBS)
- D. Amazon FSx

Correct Answer: A

Section:

Explanation:

Amazon S3 is the AWS service that provides highly durable object storage. Amazon S3 is designed to provide 99.999999999% durability of objects over a given year. This means that you can store your data with high confidence that it will not be lost. Amazon S3 also provides high availability, scalability, security, and performance for your data. You can use Amazon S3 to store and retrieve any amount of data, at any time, from anywhere on the web5.

QUESTION 72

Which pillar of the AWS Well-Architected Framework includes a design principle about measuring the overall efficiency of workloads in terms of business value?

- A. Operational excellence
- B. Security
- C. Reliability
- D. Cost optimization



Correct Answer: A

Section:

Explanation:

The operational excellence pillar of the AWS Well-Architected Framework includes a design principle about measuring the overall efficiency of workloads in terms of business value. This principle states that you should monitor and measure key performance indicators (KPIs) and set targets and thresholds that align with your business goals. You should also use feedback loops to continuously improve your processes and procedures1.

QUESTION 73

Who enables encryption of data at rest for Amazon Elastic Block Store (Amazon EBS)?

- A. AWS Support
- B. AWS customers
- C. AWS Key Management Service (AWS KMS)
- D. AWS Trusted Advisor

Correct Answer: B

Section:

Explanation:

AWS customers are responsible for enabling encryption of data at rest for Amazon Elastic Block Store (Amazon EBS). Amazon EBS encryption offers a simple encryption solution for your EBS volumes that does not require you to build, maintain, and secure your own key management infrastructure. You can encrypt both the boot and data volumes of your EC2 instances. You can use AWS Key Management Service (AWS KMS) customer master keys (CMKs) or your own CMKs to encrypt your volumes2.

QUESTION 74

Who is responsible for decommissioning end-of-life underlying storage devices that are used to host data on AWS?

- A. Customer
- B. AWS
- C. Account creator
- D. Auditing team

Correct Answer: B

Section:

Explanation:

AWS is responsible for decommissioning end-of-life underlying storage devices that are used to host data on AWS. AWS follows strict and audited data destruction processes to ensure that customer data is not exposed to unauthorized individuals or devices when an AWS storage device reaches the end of its useful life. AWS uses techniques detailed in DoD 5220.22-M ("National Industrial Security Program Operating Manual") or NIST 800-88 ("Guidelines for Media Sanitization") to destroy data as part of the decommissioning process³.

QUESTION 75

A company wants to manage access and permissions for its third-party software as a service (SaaS) applications. The company wants to use a portal where end users can access assigned AWS accounts and AWS Cloud applications.

Which AWS service should the company use to meet these requirements?

- A. Amazon Cognito
- B. AWS IAM Identity Center (AWS Single Sign-On)
- C. AWS Identity and Access Management (IAM)
- D. AWS Directory Service for Microsoft Active Directory

Correct Answer: B

Section:

Explanation:

AWS IAM Identity Center (AWS Single Sign-On) is the AWS service that the company should use to meet the requirements of managing access and permissions for its third-party SaaS applications.

AWS Single Sign-On is a cloud-based service that makes it easy to centrally manage single sign-on (SSO) access to multiple AWS accounts and business applications. You can use AWS Single Sign-On to enable your users to sign in to a user portal with their existing corporate credentials and access all of their assigned accounts and applications from one place⁴.

QUESTION 76

A large company wants to track the combined AWS usage costs of all of its linked accounts.

How can this be accomplished?

- A. Use AWS Trusted Advisor to generate customized summary reports.
- B. Use AWS Organizations to generate consolidated billing reports.
- C. Use AWS Budgets to set utilization targets and receive summary reports.
- D. Use the AWS Control Tower dashboard to get a summary report of all linked account costs.

Correct Answer: B

Section:

Explanation:

The company can use AWS Organizations to track the combined AWS usage costs of all of its linked accounts. AWS Organizations is a service that enables you to consolidate multiple AWS accounts into an organization that you can manage centrally. You can use AWS Organizations to create a consolidated billing report that shows the charges incurred by each account in your organization as well as the total charges across all accounts. You can also use AWS Organizations to apply policies and controls to your accounts to help you manage costs and security⁵.



QUESTION 77

A company wants its Amazon EC2 instances to operate in a highly available environment, even if there is a natural disaster in a particular geographic area. Which solution achieves this goal?

- A. Use EC2 instances in a single Availability Zone.
- B. Use EC2 instances in multiple AWS Regions.
- C. Use EC2 instances in multiple edge locations.
- D. Use Amazon CloudFront with the EC2 instances configured as the source.

Correct Answer: B

Section:

Explanation:

To achieve high availability in the event of a natural disaster, the company should use EC2 instances in multiple AWS Regions. AWS Regions are geographically isolated areas that consist of multiple Availability Zones. Availability Zones are physically separate locations within an AWS Region that are engineered to be isolated from failures. By using EC2 instances in multiple AWS Regions, the company can ensure that its applications can continue to run even if one Region is affected by a disaster. AWS Global Infrastructure AWS Well-Architected Framework

QUESTION 78

Using Amazon Elastic Container Service (Amazon ECS) to break down a monolithic architecture into microservices is an example of:

- A. a loosely coupled architecture.
- B. a tightly coupled architecture.
- C. a stateless architecture.
- D. a stateful architecture.

Correct Answer: A

Section:

Explanation:

Using Amazon Elastic Container Service (Amazon ECS) to break down a monolithic architecture into microservices is an example of a loosely coupled architecture. A loosely coupled architecture is one where the components are independent and can communicate with each other through well-defined interfaces. This allows for greater scalability, flexibility, and resilience. A tightly coupled architecture is one where the components are interdependent and rely on each other for functionality. This can lead to increased complexity, fragility, and difficulty in changing or scaling the system. Amazon ECS Overview AWS Well-Architected Framework

QUESTION 79

Which of the following are design principles for reliability in the AWS Cloud? (Select TWO.)

- A. Build architectures with tightly coupled resources.
- B. Use AWS Trusted Advisor to meet security best practices.
- C. Use automation to recover immediately from failure.
- D. Rightsize Amazon EC2 instances to ensure optimal performance.
- E. Simulate failures to test recovery processes.

Correct Answer: C, E

Section:

Explanation:

The design principles for reliability in the AWS Cloud are:

Test recovery procedures. The best way to ensure that systems can recover from failures is to regularly test them using simulated scenarios. This can help identify gaps and improve the recovery process.

Automatically recover from failure. By using automation, systems can detect and correct failures without human intervention. This can reduce the impact and duration of failures and improve the availability of the system.

Scale horizontally to increase aggregate system availability. By adding more redundant resources to the system, the impact of individual resource failures can be reduced. This can also improve the performance and scalability of the system.



Stop guessing capacity. By using monitoring and automation, systems can adjust the capacity based on the demand and performance metrics. This can prevent failures due to insufficient or excessive capacity and optimize the cost and efficiency of the system.

Manage change in automation. By using automation, changes to the system can be applied in a consistent and controlled manner. This can reduce the risk of human errors and configuration drifts that can cause failures. AWS Well-Architected Framework

QUESTION 80

Which statements represent the cost-effectiveness of the AWS Cloud? (Select TWO.)

- A. Users can trade fixed expenses for variable expenses.
- B. Users can deploy all over the world in minutes.
- C. AWS offers increased speed and agility.
- D. AWS is responsible for patching the infrastructure.
- E. Users benefit from economies of scale.

Correct Answer: A, E

Section:

Explanation:

The statements that represent the cost-effectiveness of the AWS Cloud are:

Users can trade fixed expenses for variable expenses. By using the AWS Cloud, users can pay only for the resources they use, instead of investing in fixed and upfront costs for hardware and software. This can lower the total cost of ownership and increase the return on investment.

Users benefit from economies of scale. By using the AWS Cloud, users can leverage the massive scale and efficiency of AWS to access lower prices and higher performance. AWS passes the cost savings to the users through price reductions and innovations. AWS Cloud Value Framework

QUESTION 81

A company wants to migrate its on-premises data warehouse to AWS. The information in the data warehouse is used to populate analytics dashboards. Which AWS service should the company use for the data warehouse?

- A. Amazon ElastiCache
- B. Amazon Aurora
- C. Amazon RDS
- D. Amazon Redshift

Correct Answer: D

Section:

Explanation:

The AWS service that the company should use for the data warehouse is Amazon Redshift. Amazon Redshift is a fully managed, petabyte-scale data warehouse service that is optimized for analytical queries. It can integrate with various data sources and business intelligence tools to provide fast and cost-effective insights. Amazon Redshift also offers high availability, scalability, security, and compliance features. [Amazon Redshift Overview]

QUESTION 82

Which benefit does Amazon Rekognition provide?

- A. The ability to place watermarks on images
- B. The ability to detect objects that appear in pictures
- C. The ability to resize millions of images automatically
- D. The ability to bid on object detection jobs

Correct Answer: B

Section:

Explanation:

Amazon Rekognition is a service that provides deep learning-based image and video analysis. One of the benefits of Amazon Rekognition is the ability to detect objects that appear in pictures, such as faces, landmarks, animals, text, and scenes. This can enable applications to perform tasks such as face recognition, face verification, face comparison, face search, celebrity recognition, emotion detection, age range estimation, gender identification, facial analysis, facial expression recognition, and more. Amazon Rekognition OverviewAWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 83

Which AWS service uses a combination of publishers and subscribers?

- A. AWS Lambda
- B. Amazon Simple Notification Service (Amazon SNS)
- C. Amazon CloudWatch
- D. AWS CloudFormation

Correct Answer: B

Section:

Explanation:

Amazon Simple Notification Service (Amazon SNS) is a service that provides fully managed pub/sub messaging. Pub/sub messaging is a pattern that uses a combination of publishers and subscribers. Publishers are entities that produce messages and send them to topics. Subscribers are entities that receive messages from topics. Topics are logical access points that act as communication channels between publishers and subscribers. Amazon SNS enables applications to decouple, scale, and coordinate the delivery of messages to multiple endpoints, such as email, SMS, mobile push notifications, Lambda functions, SQS queues, and HTTP/S endpoints. Amazon SNS OverviewAWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 84

A company is developing an application that uses multiple AWS services. The application needs to use temporary, limited-privilege credentials for authentication with other AWS APIs. Which AWS service or feature should the company use to meet these authentication requirements?

- A. Amazon API Gateway
- B. IAM users
- C. AWS Security Token Service (AWS STS)
- D. IAM instance profiles

Correct Answer: C

Section:

Explanation:

AWS Security Token Service (AWS STS) is a service that enables applications to request temporary, limited-privilege credentials for authentication with other AWS APIs. AWS STS can be used to grant access to AWS resources to users who are federated (using IAM roles), switched (using IAM users), or cross-account (using IAM roles). AWS STS can also be used to assume a role within the same account or a different account. The credentials issued by AWS STS are short-term and have a limited scope, which can enhance the security and compliance of the application. AWS STS OverviewAWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 85

A company is migrating an application that includes an Oracle database to AWS. The company cannot rewrite the application. To which AWS service could the company migrate the database?

- A. Amazon Athena
- B. Amazon DynamoDB
- C. Amazon RDS
- D. Amazon DocumentDB (with MongoDB compatibility)

Correct Answer: C

Section:

Explanation:

Amazon Relational Database Service (Amazon RDS) is a service that provides fully managed relational database engines. Amazon RDS supports several database engines, including Oracle, MySQL, PostgreSQL, MariaDB, SQL Server, and Amazon Aurora. Amazon RDS can be used to migrate an application that includes an Oracle database to AWS without rewriting the application, as long as the application is compatible with the Oracle version and edition supported by Amazon RDS. Amazon RDS can also provide benefits such as high availability, scalability, security, backup and restore, and performance optimization. [Amazon RDS Overview] AWS Certified Cloud Practitioner -aws.amazon.com

QUESTION 86

Which of the following is an AWS value proposition that describes a user's ability to scale infrastructure based on demand?

- A. Speed of innovation
- B. Resource elasticity
- C. Decoupled architecture
- D. Global deployment

Correct Answer: B

Section:**Explanation:**

Resource elasticity is an AWS value proposition that describes a user's ability to scale infrastructure based on demand. Resource elasticity means that the user can provision or deprovision resources quickly and easily, without any upfront commitment or long-term contract. Resource elasticity can help the user optimize the cost and performance of the application, as well as respond to changing business needs and customer expectations. Resource elasticity can be achieved by using services such as Amazon EC2, Amazon S3, Amazon RDS, Amazon DynamoDB, Amazon ECS, and AWS Lambda.

[AWS Cloud Value Framework] AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 87

A company needs to continuously monitor its environment to analyze network and account activity and identify potential security threats. Which AWS service should the company use to meet these requirements?

- A. AWS Artifact
- B. Amazon Macie
- C. AWS Identity and Access Management (IAM)
- D. Amazon GuardDuty

Correct Answer: D

Section:**Explanation:**

Amazon GuardDuty is a service that provides intelligent threat detection and continuous monitoring for the AWS environment. It analyzes network and account activity using machine learning and threat intelligence to identify potential security threats, such as unauthorized access, compromised credentials, malicious hosts, and reconnaissance activities. It also generates detailed and actionable findings that can be viewed on the AWS Management Console or sent to other AWS services, such as Amazon CloudWatch Events and AWS Lambda, for further analysis or remediation. Amazon GuardDuty Overview AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 88

Which AWS service can report how AWS resource configurations have changed over time?

- A. AWS CloudTrail
- B. Amazon CloudWatch
- C. AWS Config
- D. Amazon Inspector

Correct Answer: C

Section:**Explanation:**

AWS Config is a service that enables users to assess, audit, and evaluate the configurations of AWS resources. It continuously monitors and records the configuration changes of the resources and evaluates them against desired configurations and best practices. It also provides a detailed view of the resource configuration history and relationships, as well as compliance reports and notifications.

AWS Config can help users maintain consistent and secure configurations, troubleshoot issues, and simplify compliance auditing. AWS Config Overview AWS Certified Cloud Practitioner -aws.amazon.com

QUESTION 89

Which AWS benefit is demonstrated by on-demand technology services that enable companies to replace upfront fixed expenses with variable expenses?

- A. High availability
- B. Economies of scale
- C. Pay-as-you-go pricing
- D. Global reach

Correct Answer: C

Section:**Explanation:**

Pay-as-you-go pricing is an AWS benefit that demonstrates the ability of users to replace upfront fixed expenses with variable expenses. With pay-as-you-go pricing, users only pay for the resources they consume, without any long-term contracts or commitments. This can lower the total cost of ownership and increase the return on investment. Pay-as-you-go pricing also provides flexibility and scalability, as users can adjust their resource usage according to their changing needs and demands. AWS Cloud Value Framework AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 90

A company is using AWS Lambda functions to build an application.

Which tasks are the company's responsibility, according to the AWS shared responsibility model? (Select TWO.)

- A. Patch the servers where the Lambda functions are deployed.
- B. Establish the IAM permissions that define who can run the Lambda functions.
- C. Write the code for the Lambda functions to define the application logic.
- D. Deploy Amazon EC2 instances to support the Lambda functions.
- E. Scale out the Lambda functions when the load increases.

Correct Answer: B, C

Section:**Explanation:**

According to the AWS shared responsibility model, AWS is responsible for the security of the cloud, while the user is responsible for the security in the cloud. This means that AWS manages the security and maintenance of the underlying infrastructure, such as the servers, networks, and operating systems, while the user manages the security and configuration of the resources and applications that run on AWS. For AWS Lambda functions, the tasks that are the user's responsibility are:

Establish the IAM permissions that define who can run the Lambda functions. IAM is a service that enables users to manage access and permissions for AWS resources and users. Users can create IAM policies, roles, and users to grant or deny permissions to run Lambda functions, invoke other AWS services, or access AWS resources from Lambda functions. [AWS Lambda Permissions] AWS Certified Cloud Practitioner - aws.amazon.com

Write the code for the Lambda functions to define the application logic. Lambda functions are units of code that can be written in any supported programming language, such as Python, Node.js, Java, or Go. Users can write the code for the Lambda functions using the AWS Management Console, the AWS Command Line Interface (AWS CLI), the AWS SDKs, or any code editor of their choice. Users can also use AWS Lambda Layers to share and manage common code and dependencies across multiple functions. [AWS Lambda Overview] AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 91

Which services can be used to deploy applications on AWS? (Select TWO.)

- A. AWS Elastic Beanstalk

- B. AWS Config
- C. AWS OpsWorks
- D. AWS Application Discovery Service
- E. Amazon Kinesis

Correct Answer: A, C

Section:

Explanation:

The services that can be used to deploy applications on AWS are:

AWS Elastic Beanstalk. This is a service that simplifies the deployment and management of web applications on AWS. Users can upload their application code and Elastic Beanstalk automatically handles the provisioning, scaling, load balancing, monitoring, and health checking of the resources needed to run the application. Users can also retain full control and access to the underlying resources and customize their configuration settings.

Elastic Beanstalk supports multiple platforms, such as Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker. [AWS Elastic Beanstalk Overview] AWS Certified Cloud Practitioner - aws.amazon.com

AWS OpsWorks. This is a service that provides configuration management and automation for AWS resources. Users can define the application architecture and the configuration of each resource using Chef or Puppet, which are popular open-source automation platforms. OpsWorks then automatically creates and configures the resources according to the user's specifications. OpsWorks also provides features such as auto scaling, monitoring, and integration with other AWS services. OpsWorks has two offerings: OpsWorks for Chef Automate and OpsWorks for Puppet Enterprise. [AWS OpsWorks Overview] AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 92

Which statement describes a characteristic of the AWS global infrastructure?

- A. Edge locations contain multiple AWS Regions.
- B. AWS Regions contain multiple Regional edge caches.
- C. Availability Zones contain multiple data centers.
- D. Each data center contains multiple edge locations.

Correct Answer: C

Section:

Explanation:

Availability Zones contain multiple data centers. This is a characteristic of the AWS global infrastructure, which consists of AWS Regions, Availability Zones, and edge locations. AWS Regions are geographically isolated areas that contain multiple Availability Zones. Availability Zones are physically separate locations within an AWS Region that are engineered to be isolated from failures and connected by low-latency, high-throughput, and highly redundant networking. Each Availability Zone contains one or more data centers that house the servers and storage devices that run AWS services. Edge locations are sites that are located closer to the end users and provide caching and content delivery services. AWS Global Infrastructure AWS Certified Cloud Practitioner -aws.amazon.com

QUESTION 93

Which of the following is available to a company that has an AWS Business Support plan?

- A. AWS Support concierge
- B. AWS DDoS Response Team (DRT)
- C. AWS technical account manager (TAM)
- D. AWS Health API

Correct Answer: D

Section:

Explanation:

AWS Health API is available to a company that has an AWS Business Support plan. The AWS Health API provides programmatic access to the AWS Health information that is presented in the AWS Personal Health Dashboard. The AWS Health API can help users get timely and personalized information about events that can affect the availability and performance of their AWS resources, such as scheduled maintenance, network issues, or service disruptions. The AWS Health API can also integrate with other AWS services, such as Amazon CloudWatch Events and AWS Lambda, to enable automated actions and notifications. AWS Health API Overview AWS Support Plans

QUESTION 94



Which pillar of the AWS Well-Architected Framework focuses on the return on investment of moving into the AWS Cloud?

- A. Sustainability
- B. Cost optimization
- C. Operational excellence
- D. Reliability

Correct Answer: B

Section:

Explanation:

Cost optimization is the pillar of the AWS Well-Architected Framework that focuses on the return on investment of moving into the AWS Cloud. Cost optimization means that users can achieve the desired business outcomes at the lowest possible price point, while maintaining high performance and reliability. Cost optimization can be achieved by using various AWS features and best practices, such as pay-as-you-go pricing, right-sizing, elasticity, reserved instances, spot instances, cost allocation tags, cost and usage reports, and AWS Trusted Advisor. [AWS Well-Architected Framework] AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 95

Which AWS service or feature offers HTTP attack protection to users running public-facing web applications?

- A. Security groups
- B. Network ACLs
- C. AWS Shield Standard
- D. AWS WAF

Correct Answer: D

Section:

Explanation:

AWS WAF is the AWS service or feature that offers HTTP attack protection to users running public-facing web applications. AWS WAF is a web application firewall that helps users protect their web applications from common web exploits, such as SQL injection, cross-site scripting, and bot attacks.

Users can create custom rules to define the web traffic that they want to allow, block, or count. Users can also use AWS Managed Rules, which are pre-configured rules that are curated and maintained by AWS or AWS Marketplace Sellers. AWS WAF can be integrated with other AWS services, such as Amazon CloudFront, Amazon API Gateway, and Application Load Balancer, to provide comprehensive security for web applications. [AWS WAF Overview] AWS Certified Cloud Practitioner -aws.amazon.com

QUESTION 96

What is an Availability Zone?

- A. A location where users can deploy compute, storage, database, and other select AWS services where no AWS Region currently exists
- B. One or more discrete data centers with redundant power, networking, and connectivity
- C. One or more clusters of servers where new workloads can be deployed
- D. A fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to users globally

Correct Answer: B

Section:

Explanation:

An Availability Zone is one or more discrete data centers with redundant power, networking, and connectivity. Availability Zones are part of the AWS global infrastructure, which consists of AWS Regions, Availability Zones, and edge locations. Availability Zones are physically separate locations within an AWS Region that are engineered to be isolated from failures and connected by low-latency, high-throughput, and highly redundant networking.

Each Availability Zone contains one or more data centers that house the servers and storage devices that run AWS services. Availability Zones enable users to design and operate fault-tolerant and high-availability applications on AWS. AWS Global Infrastructure AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 97

Which of the following is a cloud benefit that AWS offers to its users?

- A. The ability to configure AWS data center hypervisors
- B. The ability to purchase hardware in advance of increased traffic
- C. The ability to deploy to AWS on a global scale
- D. Compliance audits for user IT environments

Correct Answer: C

Section:

Explanation:

The ability to deploy to AWS on a global scale is a cloud benefit that AWS offers to its users. AWS has a global infrastructure that consists of AWS Regions, Availability Zones, and edge locations. Users can choose from multiple AWS Regions around the world to deploy their applications and data closer to their end users, while also meeting their compliance and regulatory requirements. Users can also leverage AWS services, such as Amazon CloudFront, Amazon Route 53, and AWS Global Accelerator, to improve the performance and availability of their global applications. AWS also provides tools and guidance to help users optimize their global deployments, such as AWS Well-Architected Framework, AWS CloudFormation, and AWS Migration Hub. AWS Global Infrastructure [AWS Cloud Value Framework] AWS Certified Cloud Practitioner - aws.amazon.com

QUESTION 98

A company has created an AWS Cost and Usage Report and wants to visualize the report. Which AWS service should the company use to ingest and display this information?

- A. Amazon QuickSight
- B. Amazon Pinpoint
- C. Amazon Neptune
- D. Amazon Kinesis

Correct Answer: A

Section:

Explanation:

Amazon QuickSight is an AWS service that provides business intelligence and data visualization capabilities. Amazon QuickSight enables you to ingest, analyze, and display data from various sources, such as AWS Cost and Usage Reports, Amazon S3, Amazon Athena, Amazon Redshift, and Amazon RDS. You can use Amazon QuickSight to create interactive dashboards and charts that show insights and trends from your data. You can also share your dashboards and charts with other users or embed them into your applications.

QUESTION 99

A company is migrating to the AWS Cloud to meet storage needs. The company wants to optimize costs based on the amount of storage that the company uses. Which AWS offering or benefit will meet these requirements MOST cost-effectively?

- A. Pay-as-you-go pricing
- B. Savings Plans
- C. AWS Free Tier
- D. Volume-based discounts

Correct Answer: D

Section:

Explanation:

Volume-based discounts are an AWS offering or benefit that can help the company optimize costs based on the amount of storage that the company uses. Volume-based discounts are discounts that AWS provides for some storage services, such as Amazon S3 and Amazon EBS, when the company stores a large amount of data. The more data the company stores, the lower the price per GB. For example, Amazon S3 offers six storage classes, each with a different price per GB. The price per GB decreases as the amount of data stored in each storage class increases

QUESTION 100



A company wants to minimize network latency between its Amazon EC2 instances. The EC2 instances do not need to be highly available. Which solution meets these requirements?

- A. Use EC2 instances in a single Availability Zone.
- B. Use Amazon CloudFront as the database for the EC2 instances.
- C. Use EC2 instances in the same edge location and the same Availability Zone.
- D. Use EC2 instances in the same edge location and the same AWS Region.

Correct Answer: A

Section:

Explanation:

Using EC2 instances in a single Availability Zone is a solution that meets the requirements of minimizing network latency between the EC2 instances and not needing high availability. An Availability Zone is a physically isolated location within an AWS Region that has its own power, cooling, and network connectivity. EC2 instances within the same Availability Zone can communicate with each other using low-latency private IP addresses. However, EC2 instances in a single Availability Zone are not highly available, because they are vulnerable to failures or disruptions that affect the Availability Zone

QUESTION 101

A company seeks cost savings in exchange for a commitment to use a specific amount of an AWS service or category of AWS services for 1 year or 3 years. Which AWS pricing model or offering will meet these requirements?

- A. Pay-as-you-go pricing
- B. Savings Plans
- C. AWS Free Tier
- D. Volume discounts

Correct Answer: B

Section:

Explanation:

Savings Plans are an AWS pricing model or offering that can meet the requirements of seeking cost savings in exchange for a commitment to use a specific amount of an AWS service or category of AWS services for 1 year or 3 years. Savings Plans are flexible plans that offer significant discounts on AWS compute usage, such as EC2, Lambda, and Fargate. The company can choose from two types of Savings Plans: Compute Savings Plans and EC2 Instance Savings Plans. Compute Savings Plans provide the most flexibility and apply to any eligible compute usage, regardless of instance family, size, region, operating system, or tenancy. EC2 Instance Savings Plans provide more savings and apply to a specific instance family within a region. The company can select the amount of compute usage per hour (e.g., \$10/hour) that they want to commit to for the duration of the plan (1 year or 3 years). The company will pay the discounted Savings Plan rate for the amount of usage that matches their commitment, and the regular on-demand rate for any usage beyond that

QUESTION 102

Which company needs to apply security rules to a subnet for Amazon EC2 instances. Which AWS service or feature provides this functionality?

- A. Network ACLs
- B. Security groups
- C. AWS Certificate Manager (ACM)
- D. AWS Config

Correct Answer: A

Section:

Explanation:

Network ACLs (network access control lists) are an AWS service or feature that provides the functionality of applying security rules to a subnet for EC2 instances. A subnet is a logical partition of an IP network within a VPC (virtual private cloud). A VPC is a logically isolated section of the AWS Cloud where the company can launch AWS resources in a virtual network that they define. A network ACL is a virtual firewall that controls the inbound and outbound traffic for one or more subnets. The company can use network ACLs to allow or deny traffic based on protocol, port, or source and destination IP address. Network ACLs are stateless, meaning that they do not



track the traffic that flows through them. Therefore, the company must create rules for both inbound and outbound traffic⁴

QUESTION 103

Which AWS service can a company use to perform complex analytical queries?

- A. Amazon RDS
- B. Amazon DynamoDB
- C. Amazon Redshift
- D. Amazon ElastiCache

Correct Answer: C

Section:

Explanation:

Amazon Redshift is a fully managed, petabyte-scale data warehouse service in the cloud. You can start with just a few hundred gigabytes of data and scale to a petabyte or more. This enables you to use your data to acquire new insights for your business and customers. Amazon Redshift is designed for complex analytical queries that often involve aggregations and joins across very large tables. Amazon Redshift supports standard SQL and integrates with many existing business intelligence tools¹.

QUESTION 104

A company wants to track its AWS account's service costs. The company also wants to receive notifications when costs are forecasted to reach a specific level.

Which AWS service or tool provides this functionality?

- A. AWS Budgets
- B. AWS Cost Explorer
- C. Savings Plans
- D. AWS Billing Conductor

Correct Answer: A

Section:

Explanation:

AWS Budgets gives you the ability to set custom budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount. You can also use AWS Budgets to set reservation utilization or coverage targets and receive alerts when your utilization drops below the threshold you define².

QUESTION 105

An ecommerce company has migrated its IT infrastructure from an on-premises data center to the AWS Cloud.

Which AWS service is used to track, record, and audit configuration changes made to AWS resources?

- A. AWS Shield
- B. AWS Config
- C. AWS IAM
- D. Amazon Inspector

Correct Answer: B

Section:

Explanation:

AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. AWS Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations. With AWS Config, you can review changes in configurations and relationships between AWS resources, dive into detailed resource configuration histories, and determine your overall compliance against the configurations specified in your internal guidelines³.



QUESTION 106

A company needs to test a new application that was written in Python. The code will activate when new images are stored in an Amazon S3 bucket. The application will put a watermark on each image and then will store the images in a different S3 bucket.

Which AWS service should the company use to conduct the test with the LEAST amount of operational overhead?

- A. Amazon EC2
- B. AWS CodeDeploy
- C. AWS Lambda
- D. Amazon Lightsail

Correct Answer: C

Section:

Explanation:

AWS Lambda is a compute service that lets you run code without provisioning or managing servers.

AWS Lambda executes your code only when needed and scales automatically, from a few requests per day to thousands per second. You pay only for the compute time you consume - there is no charge when your code is not running. With AWS Lambda, you can run code for virtually any type of application or backend service - all with zero administration. AWS Lambda runs your code on a highavailability compute infrastructure and performs all of the administration of the compute resources, including server and operating system maintenance, capacity provisioning and automatic scaling, code monitoring and logging

QUESTION 107

Which of the following are customer responsibilities under the AWS shared responsibility model?

(Select TWO.)

- A. Physical security of AWS facilities
- B. Configuration of security groups
- C. Encryption of customer data on AWS
- D. Management of AWS Lambda infrastructure
- E. Management of network throughput of each AWS Region

Correct Answer: B, C

Section:

Explanation:

The AWS shared responsibility model describes how AWS and the customer share responsibility for security and compliance of the AWS environment. AWS is responsible for the security of the cloud, which includes the physical security of AWS facilities, the infrastructure, hardware, software, and networking that run AWS services. The customer is responsible for security in the cloud, which includes the configuration of security groups, the encryption of customer data on AWS, the management of AWS Lambda infrastructure, and the management of network throughput of each AWS Region.

QUESTION 108

Which AWS service or tool can be used to consolidate payments for a company with multiple AWS accounts?

- A. AWS Cost and Usage Report
- B. AWS Organizations
- C. Cost Explorer
- D. AWS Budgets

Correct Answer: B

Section:

Explanation:

AWS Organizations is an account management service that enables you to consolidate multiple AWS accounts into an organization that you create and centrally manage. AWS Organizations includes consolidated billing and account management capabilities that enable you to better meet the budgetary, security, and compliance needs of your business¹.



QUESTION 109

How can an AWS user conduct security assessments of Amazon EC2 instances, NAT gateways, and Elastic Load Balancers in a way that is approved by AWS?

- A. Flood a target with requests.
- B. Use Amazon Inspector.
- C. Perform penetration testing.
- D. Use the AWS Service Health Dashboard.

Correct Answer: B

Section:

Explanation:

Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Amazon Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices. After performing an assessment, Amazon Inspector produces a detailed list of security findings prioritized by level of severity².

QUESTION 110

Which AWS service will help protect applications running on AWS from DDoS attacks?

- A. Amazon GuardDuty
- B. AWS WAF
- C. AWS Shield
- D. Amazon Inspector

Correct Answer: C

Section:

Explanation:

AWS Shield is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS. AWS Shield provides always-on detection and automatic inline mitigations that minimize application downtime and latency, so there is no need to engage AWS Support to benefit from DDoS protection³.

QUESTION 111

A cloud engineer wants to know the percentage of the allocated compute units that are in use for a specific Amazon EC2 instance.

Which AWS service can provide this information?

- A. AWS CloudTrail
- B. AWS Config
- C. Amazon CloudWatch
- D. AWS Artifact

Correct Answer: C

Section:

Explanation:

Amazon CloudWatch is a monitoring and observability service built for DevOps engineers, developers, site reliability engineers (SREs), and IT managers. CloudWatch provides you with data and actionable insights to monitor your applications, respond to system-wide performance changes, optimize resource utilization, and get a unified view of operational health. CloudWatch collects monitoring and operational data in the form of logs, metrics, and events, providing you with a unified view of AWS resources, applications, and services that run on AWS and on-premises servers

QUESTION 112

Which activity is a customer responsibility in the AWS Cloud according to the AWS shared responsibility model?

- A. Ensuring network connectivity from AWS to the internet



- B. Patching and fixing flaws within the AWS Cloud infrastructure
- C. Ensuring the physical security of cloud data centers
- D. Ensuring Amazon EBS volumes are backed up

Correct Answer: D

Section:

Explanation:

The AWS shared responsibility model describes how AWS and the customer share responsibility for security and compliance of the AWS environment. AWS is responsible for the security of the cloud, which includes the physical security of AWS facilities, the infrastructure, hardware, software, and networking that run AWS services. The customer is responsible for security in the cloud, which includes the configuration of security groups, the encryption of customer data on AWS, the management of AWS Lambda infrastructure, and the management of network throughput of each AWS Region. One of the customer responsibilities is to ensure that Amazon EBS volumes are backed up.

QUESTION 113

Which AWS service meets this requirement?

- A. AWS CloudFormation
- B. AWS Elastic Beanstalk
- C. AWS Cloud9
- D. AWS CloudShell

Correct Answer: A

Section:

Explanation:

AWS CloudFormation is a service that gives developers and businesses an easy way to create a collection of related AWS and third-party resources, and provision and manage them in an orderly and predictable fashion. You can use AWS CloudFormation's sample templates or create your own templates to describe the AWS and third-party resources, and any associated dependencies or runtime parameters, required to run your application.

QUESTION 114

A company wants to use the AWS Cloud as an offsite backup location for its on-premises infrastructure. Which AWS service will meet this requirement MOST cost-effectively?

- A. Amazon S3
- B. Amazon Elastic File System (Amazon EFS)
- C. Amazon FSx
- D. Amazon Elastic Block Store (Amazon EBS)

Correct Answer: A

Section:

Explanation:

Amazon S3 is the most cost-effective service for storing offsite backups of on-premises infrastructure.

Amazon S3 offers low-cost, durable, and scalable storage that can be accessed from anywhere over the internet. Amazon S3 also supports lifecycle policies, versioning, encryption, and cross-region replication to optimize the backup and recovery process. Amazon EFS, Amazon FSx, and Amazon EBS are more suitable for storing data that requires high performance, low latency, and frequent access¹²

QUESTION 115

A company is building a serverless architecture that connects application data from multiple data sources. The company needs a solution that does not require additional code. Which AWS service meets these requirements?

- A. AWS Lambda
- B. Amazon Simple Queue Service (Amazon SQS)

- C. Amazon CloudWatch
- D. Amazon EventBridge

Correct Answer: D

Section:

Explanation:

Amazon EventBridge is the service that meets the requirements of building a serverless architecture that connects application data from multiple data sources without requiring additional code. Amazon EventBridge is a serverless event bus service that allows you to easily connect your applications with data from AWS services, SaaS applications, and your own applications. You can use Amazon EventBridge to create rules that match events and route them to targets such as AWS Lambda functions, Amazon SNS topics, Amazon SQS queues, or other AWS services. Amazon EventBridge handles the event ingestion, delivery, security, authorization, and error handling for you³⁴

QUESTION 116

A company needs to use standard SQL to query and combine exabytes of structured and semistructured data across a data warehouse, operational database, and data lake. Which AWS service meets these requirements?

- A. Amazon DynamoDB
- B. Amazon Aurora
- C. Amazon Athena
- D. Amazon Redshift

Correct Answer: D

Section:

Explanation:

Amazon Redshift is the service that meets the requirements of using standard SQL to query and combine exabytes of structured and semi-structured data across a data warehouse, operational database, and data lake. Amazon Redshift is a fully managed, petabyte-scale data warehouse service that allows you to run complex analytic queries using standard SQL and your existing business intelligence tools. Amazon Redshift also supports Redshift Spectrum, a feature that allows you to directly query and join data stored in Amazon S3 using the same SQL syntax. Amazon Redshift can scale up or down to handle any volume of data and deliver fast query performance⁵

QUESTION 117

A company's information security manager is supervising a move to AWS and wants to ensure that AWS best practices are followed. The manager has concerns about the potential misuse of AWS account root user credentials.

Which of the following is an AWS best practice for using the AWS account root user credentials?

- A. Allow only the manager to use the account root user credentials for normal activities.
- B. Use the account root user credentials only for Amazon EC2 instances from the AWS Free Tier.
- C. Use the account root user credentials only when they alone must be used to perform a required function.
- D. Use the account root user credentials only for the creation of private VPC subnets.

Correct Answer: C

Section:

Explanation:

The AWS best practice for using the AWS account root user credentials is to use them only when they alone must be used to perform a required function. The AWS account root user credentials have full access to all the resources in the account, and therefore pose a security risk if compromised or misused. You should create individual IAM users with the minimum necessary permissions for everyday tasks, and use AWS Organizations to manage multiple accounts. You should also enable multi-factor authentication (MFA) and rotate the password for the root user regularly. Some of the functions that require the root user credentials are changing the account name, closing the account, changing the support plan, and restoring an IAM user's access.

QUESTION 118

A company needs to store data across multiple Availability Zones in an AWS Region. The data will not be accessed regularly but must be immediately retrievable.

Which Amazon Elastic File System (Amazon EFS) storage class meets these requirements MOST cost effectively?

- A. EFS Standard
- B. EFS Standard-Infrequent Access(EFS Standard-IA)
- C. EFS One Zone
- D. EFS One Zone-Infrequent Access (EFS One Zone-IA)

Correct Answer: B

Section:

Explanation:

EFS Standard-Infrequent Access (EFS Standard-IA) is the storage class that meets the requirements of storing data across multiple Availability Zones in an AWS Region, that will not be accessed regularly but must be immediately retrievable, most cost-effectively. EFS Standard-IA is designed for files that are accessed less frequently, but still require the same high performance, low latency, and high availability as EFS Standard. EFS Standard-IA has a lower storage cost than EFS Standard, but charges a small additional fee for each access. EFS One Zone and EFS One Zone-IA store data in a single Availability Zone, which reduces the availability and durability compared to EFS Standard and EFS Standard-IA.

QUESTION 119

A company wants to establish a security layer in its VPC that will act as a firewall to control subnet traffic. Which AWS service or feature will meet this requirement?

- A. Routing tables
- B. Network access control lists (network ACLs)
- C. Security groups
- D. Amazon GuardDuty

Correct Answer: C

Section:

Explanation:

Security groups are the service or feature that meets the requirement of establishing a security layer in a VPC that will act as a firewall to control subnet traffic. Security groups are stateful firewalls that control the inbound and outbound traffic at the instance level. You can assign one or more security groups to each instance in a VPC, and specify the rules that allow or deny traffic based on the protocol, port, and source or destination. Security groups are associated with network interfaces, and therefore apply to all the instances in the subnets that use those network interfaces. Routing tables are used to direct traffic between subnets and gateways, not to filter traffic. Network ACLs are stateless firewalls that control the inbound and outbound traffic at the subnet level, but they are less granular and more cumbersome to manage than security groups. Amazon GuardDuty is a threat detection service that monitors your AWS account and workloads for malicious or unauthorized activity, not a firewall service.

QUESTION 120

A newly created IAM user has no IAM policy attached. What will happen when the user logs in and attempts to view the AWS resources in the account?

- A. All AWS services will be read-only access by default.
- B. Access to all AWS resources will be denied.
- C. Access to the AWS billing services will be allowed.
- D. Access to AWS resources will be allowed through the AWS CLI

Correct Answer: B

Section:

Explanation:

Access to all AWS resources will be denied if a newly created IAM user has no IAM policy attached and logs in and attempts to view the AWS resources in the account. IAM policies are the way to grant permissions to IAM users, groups, and roles to access and manage AWS resources. By default, IAM users have no permissions, unless they are explicitly granted by an IAM policy. Therefore, a newly created IAM user without any IAM policy attached will not be able to view or perform any actions on the AWS resources in the account. Access to the AWS billing services and AWS CLI will also be denied, unless the user has the necessary permissions.



QUESTION 121

A cloud practitioner is analyzing Amazon EC2 instance performance and usage to provide recommendations for potential cost savings. Which cloud concept does this analysis demonstrate?

- A. Auto scaling
- B. Rightsizing
- C. Load balancing
- D. High availability

Correct Answer: B

Section:

Explanation:

Rightsizing is the cloud concept that this analysis demonstrates. Rightsizing is the process of optimizing the performance and cost of your AWS resources by selecting the most appropriate type, size, and configuration based on your workload requirements and usage patterns. Rightsizing can help you achieve potential cost savings by reducing the over-provisioning or under-utilization of your resources. You can use various AWS tools and services, such as AWS Cost Explorer, AWS Compute Optimizer, and AWS Trusted Advisor, to analyze your resource utilization and performance metrics, and receive recommendations for rightsizing.

QUESTION 122

An auditor needs to find out whether a specific AWS service is compliant with specific compliance frameworks. Which AWS service will provide this information?

- A. AWS Artifact
- B. AWS Trusted Advisor
- C. Amazon GuardDuty
- D. AWS Certificate Manager (ACM)

Correct Answer: A

Section:

Explanation:

AWS Artifact is the service that will provide the information about whether a specific AWS service is compliant with specific compliance frameworks. AWS Artifact is a self-service portal that allows you to access, review, and download AWS security and compliance reports and agreements. You can use AWS Artifact to verify the compliance status of AWS services across various regions and compliance programs, such as ISO, PCI, SOC, FedRAMP, HIPAA, and more¹²

QUESTION 123

Which duties are the responsibility of a company that is using AWS Lambda? (Select TWO.)

- A. Security inside of code
- B. Selection of CPU resources
- C. Patching of operating system
- D. Writing and updating of code
- E. Security of underlying infrastructure

Correct Answer: A, D

Section:

Explanation:

The duties that are the responsibility of a company that is using AWS Lambda are security inside of code and writing and updating of code. AWS Lambda is a serverless compute service that allows you to run code without provisioning or managing servers, scaling, or patching. AWS Lambda takes care of the security of the underlying infrastructure, such as the operating system, the network, and the firewall. However, the company is still responsible for the security of the code itself, such as encrypting sensitive data, validating input, and handling errors. The company is also responsible for writing and updating the code that defines the Lambda function, and choosing the runtime environment, such as Node.js, Python, or Java. AWS Lambda does not require the selection of CPU resources, as it automatically allocates them based on the memory configuration³⁴



QUESTION 124

Which AWS services and features are provided to all customers at no charge? (Select TWO.)

- A. Amazon Aurora
- B. VPC
- C. Amazon SageMaker
- D. AWS Identity and Access Management (IAM)
- E. Amazon Polly

Correct Answer: B, D

Section:

Explanation:

The AWS services and features that are provided to all customers at no charge are VPC and AWS Identity and Access Management (IAM). VPC is a service that allows you to launch AWS resources in a logically isolated virtual network that you define. You can create and use a VPC at no additional charge, and you only pay for the resources that you launch in the VPC, such as EC2 instances or EBS volumes. IAM is a service that allows you to manage access and permissions to AWS resources. You can create and use IAM users, groups, roles, and policies at no additional charge, and you only pay for the AWS resources that the IAM entities access. Amazon Aurora, Amazon SageMaker, and Amazon Polly are not free services, and they charge based on the usage and features that you choose.

QUESTION 125

Which AWS services or features can control VPC traffic? (Select TWO.)

- A. Security groups
- B. AWS Direct Connect
- C. Amazon GuardDuty
- D. Network ACLs
- E. Amazon Connect

Correct Answer: A, D

Section:

Explanation:

The AWS services or features that can control VPC traffic are security groups and network ACLs.

Security groups are stateful firewalls that control the inbound and outbound traffic at the instance level. You can assign one or more security groups to each instance in a VPC, and specify the rules that allow or deny traffic based on the protocol, port, and source or destination. Network ACLs are stateless firewalls that control the inbound and outbound traffic at the subnet level. You can associate one network ACL with each subnet in a VPC, and specify the rules that allow or deny traffic based on the protocol, port, and source or destination. AWS Direct Connect, Amazon GuardDuty, and Amazon Connect are not services or features that can control VPC traffic. AWS Direct Connect is a service that establishes a dedicated network connection between your premises and AWS. Amazon GuardDuty is a service that monitors your AWS account and workloads for malicious or unauthorized activity. Amazon Connect is a service that provides a cloud-based contact center solution.

QUESTION 126

A company needs to identify the last time that a specific user accessed the AWS Management Console.

Which AWS service will provide this information?

- A. Amazon Cognito
- B. AWS CloudTrail
- C. Amazon Inspector
- D. Amazon GuardDuty

Correct Answer: B

Section:



Explanation:

AWS CloudTrail is the service that will provide the information about the last time that a specific user accessed the AWS Management Console. AWS CloudTrail is a service that records the API calls and events made by or on behalf of your AWS account. You can use AWS CloudTrail to view, search, and download the history of AWS console sign-in events, which include the user name, date, time, source IP address, and other details of the sign-in activity. Amazon Cognito, Amazon Inspector, and Amazon GuardDuty are not services that will provide this information. Amazon Cognito is a service that provides user authentication and authorization for web and mobile applications. Amazon Inspector is a service that assesses the security and compliance of your applications running on AWS.

Amazon GuardDuty is a service that monitors your AWS account and workloads for malicious or unauthorized activity.

QUESTION 127

A company's application stores data in an Amazon S3 bucket. The company has an AWS Lambda function that processes data in the S3 bucket. The company needs to invoke the function once a day at a specific time. Which AWS service should the company use to meet this requirement?

- A. AWS Managed Services (AMS)
- B. AWS CodeStar
- C. Amazon EventBridge
- D. AWS Step Functions

Correct Answer: C**Section:****Explanation:**

Amazon EventBridge is the service that the company should use to meet the requirement of invoking the Lambda function once a day at a specific time. Amazon EventBridge is a serverless event bus service that allows you to easily connect your applications with data from AWS services, SaaS applications, and your own applications. You can use Amazon EventBridge to create rules that match events and route them to targets such as AWS Lambda functions, Amazon SNS topics, Amazon SQS queues, or other AWS services. You can also use Amazon EventBridge to create scheduled rules that trigger your targets at a specific time or interval, such as once a day. AWS Managed Services (AMS), AWS CodeStar, and AWS Step Functions are not services that the company should use to meet this requirement. AMS is a service that provides operational management for your AWS infrastructure and applications. AWS CodeStar is a service that provides a unified user interface for managing software development projects on AWS. AWS Step Functions is a service that coordinates multiple AWS services into serverless workflows.

QUESTION 128

A company uses Amazon Aurora as its database service. The company wants to encrypt its databases and database backups.

Which party manages the encryption of the database clusters and database snapshots, according to the AWS shared responsibility model?

- A. AWS
- B. The company
- C. AWS Marketplace partners
- D. Third-party partners

Correct Answer: A**Section:****Explanation:**

AWS manages the encryption of the database clusters and database snapshots for Amazon Aurora, as well as the encryption keys. This is part of the AWS shared responsibility model, where AWS is responsible for the security of the cloud, and the customer is responsible for the security in the cloud. Encryption is one of the security features that AWS provides to protect the data at rest and in transit. For more information, see Amazon Aurora FAQs and AWS Shared Responsibility Model.

QUESTION 129

Which AWS solution gives companies the ability to use protocols such as NFS to store and retrieve objects in Amazon S3?

- A. Amazon FSx for Lustre
- B. AWS Storage Gateway volume gateway
- C. AWS Storage Gateway file gateway

D. Amazon Elastic File System (Amazon EFS)

Correct Answer: C

Section:

Explanation:

AWS Storage Gateway file gateway allows companies to use protocols such as NFS and SMB to store and retrieve objects in Amazon S3. File gateway provides a seamless integration between onpremises applications and Amazon S3, and enables low-latency access to data through local caching.

File gateway also supports encryption, compression, and lifecycle management of the objects in Amazon S3. For more information, see [What is AWS Storage Gateway?](#) and [File Gateway](#).

QUESTION 130

A company is launching a new application in the AWS Cloud. The application will run on an Amazon EC2 instance. More EC2 instances will be needed when the workload increases.

Which AWS service or tool can the company use to launch the number of EC2 instances that will be needed to handle the workload?

- A. Elastic Load Balancing
- B. Amazon EC2 Auto Scaling
- C. AWS App2Container (A2C)
- D. AWS Systems Manager

Correct Answer: B

Section:

Explanation:

Amazon EC2 Auto Scaling is the AWS service or tool that can help the company launch the number of EC2 instances that will be needed to handle the workload. Amazon EC2 Auto Scaling automatically adjusts the capacity of the EC2 instances based on the demand and the predefined scaling policies.

Amazon EC2 Auto Scaling also helps to improve availability and reduce costs by scaling in and out as needed. For more information, see [What is Amazon EC2 Auto Scaling?](#) and [\[Getting Started with Amazon EC2 Auto Scaling\]](#).

QUESTION 131

Which AWS service is always free of charge for users?

- A. Amazon S3
- B. Amazon Aurora
- C. Amazon EC2
- D. AWS Identity and Access Management (IAM)

Correct Answer: D

Section:

Explanation:

AWS Identity and Access Management (IAM) is a service that allows users to manage access to AWS resources and services. It enables users to create and manage users, groups, roles, and policies that control who can do what in AWS. IAM is always free of charge for users, as there is no additional cost for using IAM with any AWS service¹. Amazon S3 is a storage service that provides scalable, durable, and secure object storage. Amazon S3 has a free tier that offers 5 GB of storage, 20,000 GET requests, and 2,000 PUT requests per month for one year. However, users are charged for any additional usage beyond the free tier limits². Amazon Aurora is a relational database service that is compatible with MySQL and PostgreSQL. Amazon Aurora has a free tier that offers 750 hours of Aurora Single-AZ db.t2.small database usage and 20 GB of storage per month for one year. However, users are charged for any additional usage beyond the free tier limits³. Amazon EC2 is a compute service that provides resizable virtual servers. Amazon EC2 has a free tier that offers 750 hours of Linux and Windows t2.micro instances per month for one year. However, users are charged for any additional usage beyond the free tier limits⁴.

QUESTION 132

A company has multiple AWS accounts that include compute workloads that cannot be interrupted.

The company wants to obtain billing discounts that are based on the company's use of AWS services.

Which AWS feature or purchasing option will meet these requirements?

- A. Resource tagging
- B. Consolidated billing
- C. Pay-as-you-go pricing
- D. Spot Instances

Correct Answer: B

Section:

Explanation:

Consolidated billing is an AWS feature that allows users to combine the usage and costs of multiple

AWS accounts into a single bill. This enables users to obtain billing discounts that are based on the company's use of AWS services, such as volume pricing tiers, Reserved Instance discounts, and Savings Plans discounts.

Resource tagging is an AWS feature that allows users to assign metadata to AWS resources, such as EC2 instances, S3 buckets, and Lambda functions. This enables users to organize, track, and manage their AWS resources, such as filtering, grouping, and reporting. Pay-as-you-go pricing is an AWS pricing model that allows users to pay only for the resources and services they use, without any upfront or long-term commitments. This enables users to lower their costs by scaling up or down as needed, and avoiding over-provisioning or under-utilization. Spot Instances are spare EC2 instances that are available at up to 90% discount compared to On-Demand prices. They are suitable for workloads that can tolerate interruptions, such as batch processing, data analysis, and testing. Spot Instances are allocated based on the current supply and demand, and can be reclaimed by AWS with a two-minute notice when the demand exceeds the supply.

QUESTION 133

A company has an environment that includes Amazon EC2 instances, Amazon Lightsail, and on-premises servers. The company wants to automate the security updates for its operating systems and applications. Which solution will meet these requirements with the LEAST operational effort?

- A. Use AWS Shield to identify and manage security events.
- B. Connect to each server by using a remote desktop connection. Run an update script.
- C. Use the AWS Systems Manager Patch Manager capability.
- D. Schedule Amazon GuardDuty to run on a nightly basis.

Correct Answer: C

Section:

Explanation:

AWS Systems Manager Patch Manager is a capability that allows users to automate the security updates for their operating systems and applications. It enables users to scan their instances for missing patches, define patch baselines, schedule patching windows, and monitor patch compliance.

It supports Amazon EC2 instances, Amazon Lightsail instances, and on-premises servers. AWS Shield is a service that provides protection against Distributed Denial of Service (DDoS) attacks for AWS resources and services. It does not automate the security updates for operating systems and applications. Connecting to each server by using a remote desktop connection and running an update script is a manual and time-consuming solution that requires a lot of operational effort. It is not a recommended best practice for automating the security updates for operating systems and applications. Amazon GuardDuty is a service that provides intelligent threat detection and continuous monitoring for AWS accounts and resources. It does not automate the security updates for operating systems and applications.

QUESTION 134

A company that is planning to migrate to the AWS Cloud is based in an isolated area that has limited internet connectivity. The company needs to perform local data processing on premises. The company needs a solution that can operate without a stable internet connection.

Which AWS service will meet these requirements?

- A. Amazon S3
- B. AWS Snowball Edge
- C. AWS StorageGateway
- D. AWS Backup

Correct Answer: B

Section:

Explanation:



AWS Snowball Edge is a service that provides a physical device that can store up to 100 TB of data and perform local data processing on premises. It enables users to transfer data to and from the AWS Cloud in areas with limited or no internet connectivity. It also supports AWS Greengrass, which allows users to run AWS Lambda functions and other AWS services locally without a stable internet connection. Amazon S3 is a storage service that provides scalable, durable, and secure object storage. It requires a stable internet connection to transfer data to and from the AWS Cloud. AWS Storage Gateway is a service that provides a hybrid storage solution that connects on-premises applications to AWS Cloud storage services, such as Amazon S3, Amazon S3 Glacier, and Amazon EBS. It requires a stable internet connection to synchronize data between the on-premises and cloud storage. AWS Backup is a service that provides a centralized and automated solution to back up data across AWS services and on-premises resources. It requires a stable internet connection to transfer data to and from the AWS Cloud.

QUESTION 135

A company wants to migrate its applications to the AWS Cloud. The company plans to identify and prioritize any business transformation opportunities and evaluate its AWS Cloud readiness. Which AWS service or tool should the company use to meet these requirements?

- A. AWS Cloud Adoption Framework (AWS CAF)
- B. AWS Managed Services (AMS)
- C. AWS Well-Architected Framework
- D. AWS Migration Hub

Correct Answer: A

Section:

Explanation:

AWS Cloud Adoption Framework (AWS CAF) is a service or tool that helps users migrate their applications to the AWS Cloud. It provides guidance and best practices to identify and prioritize any business transformation opportunities and evaluate their AWS Cloud readiness. It also helps users align their business and technical perspectives, create an actionable roadmap, and measure their progress. AWS Managed Services (AMS) is a service that provides operational services for AWS infrastructure and applications. It helps users reduce their operational overhead and risk, and focus on their core business. It does not help users identify and prioritize any business transformation opportunities and evaluate their AWS Cloud readiness. AWS Well-Architected Framework is a tool that helps users design and implement secure, high-performing, resilient, and efficient solutions on AWS. It provides a set of questions and best practices across five pillars: operational excellence, security, reliability, performance efficiency, and cost optimization. It does not help users identify and prioritize any business transformation opportunities and evaluate their AWS Cloud readiness. AWS Migration Hub is a service that provides a single location to track and manage the migration of applications to AWS. It helps users discover their on-premises servers, group them into applications, and choose the right migration tools. It does not help users identify and prioritize any business transformation opportunities and evaluate their AWS Cloud readiness.

QUESTION 136

Which controls are the responsibility of both AWS and AWS customers, according to the AWS shared responsibility model? (Select TWO.)

- A. Physical and environmental controls
- B. Patch management
- C. Configuration management
- D. Account structures
- E. Choice of the AWS Region where data is stored

Correct Answer: B, C

Section:

Explanation:

Patch management and configuration management are controls that are the responsibility of both AWS and AWS customers, according to the AWS shared responsibility model. Patch management is the process of applying updates to software and applications to fix vulnerabilities, bugs, or performance issues. Configuration management is the process of defining and maintaining the settings and parameters of systems and applications to ensure their consistency and reliability. AWS is responsible for patching and configuring the software and services that it manages, such as the AWS global infrastructure, the hypervisor, and the AWS managed services. The customer is responsible for patching and configuring the software and services that they manage, such as the guest operating system, the applications, and the AWS customer-managed services. Physical and environmental controls are the responsibility of AWS, according to the AWS shared responsibility model. Physical and environmental controls are the measures that protect the physical security and availability of the AWS global infrastructure, such as power, cooling, fire suppression, and access control. AWS is responsible for maintaining these controls and ensuring the resilience and reliability of the AWS Cloud. Account structures are the responsibility of the customer, according to the AWS shared responsibility model. Account structures are the ways that customers organize and manage their AWS accounts and resources, such as using AWS Organizations, IAM users and roles, resource tagging, and billing preferences. The customer is responsible for creating and configuring these structures and ensuring the security and governance of their AWS environment. Choice of the AWS Region where data is stored is the responsibility of the customer, according to the AWS shared responsibility model. AWS Regions are geographic areas that consist of multiple isolated Availability Zones. Customers can choose which AWS Region to store

their data and run their applications, depending on their latency, compliance, and cost requirements. The customer is responsible for selecting the appropriate AWS Region and ensuring the data sovereignty and regulatory compliance of their data.

QUESTION 137

Which AWS service can a company use to securely store and encrypt passwords for a database?

- A. AWS Shield
- B. AWS Secrets Manager
- C. AWS Identity and Access Management (IAM)
- D. Amazon Cognito

Correct Answer: B

Section:

Explanation:

AWS Secrets Manager is an AWS service that can be used to securely store and encrypt passwords for a database. It allows users to manage secrets, such as database credentials, API keys, and tokens, in a centralized and secure way. It also provides features such as automatic rotation, fine-grained access control, and auditing. AWS Shield is an AWS service that provides protection against Distributed Denial of Service (DDoS) attacks for AWS resources and services. It does not store or encrypt passwords for a database. AWS Identity and Access Management (IAM) is an AWS service that allows users to manage access to AWS resources and services. It can be used to create users, groups, roles, and policies that control who can do what in AWS. It does not store or encrypt passwords for a database. Amazon Cognito is an AWS service that provides user identity and data synchronization for web and mobile applications. It can be used to authenticate and authorize users, manage user profiles, and sync user data across devices. It does not store or encrypt passwords for a database.

QUESTION 138

Which of the following is the customer's responsibility, according to the AWS shared responsibility model?

- A. Identity and access management
- B. Hard drive initialization
- C. Protection of data center hardware
- D. Security of Availability Zones

Correct Answer: A

Section:

Explanation:

Identity and access management is the customer's responsibility, according to the AWS shared responsibility model. This means that the customer is responsible for managing user access to the AWS resources, using tools such as AWS Identity and Access Management (IAM), AWS Single Sign-On (SSO), and AWS Organizations. The customer is also responsible for securing their data in transit and at rest, using encryption, key management, and other methods. Hard drive initialization, protection of data center hardware, and security of Availability Zones are AWS's responsibility, as they are part of the infrastructure, physical security, and network security that AWS provides to the customer¹²

QUESTION 139

A company wants to create multiple isolated networks in the same AWS account.

Which AWS service or component will provide this functionality?

- A. AWS Transit Gateway
- B. Internet gateway
- C. Amazon VPC
- D. Amazon EC2

Correct Answer: C

Section:

Explanation:



Amazon Virtual Private Cloud (Amazon VPC) is the AWS service that allows customers to create multiple isolated networks in the same AWS account. A VPC is a logically isolated section of the AWS Cloud where customers can launch AWS resources in a virtual network that they define. Customers can create multiple VPCs within an AWS account, each with its own IP address range, subnets, route tables, security groups, network access control lists, gateways, and other components. AWS Transit Gateway, Internet gateway, and Amazon EC2 are not services or components that provide the functionality of creating multiple isolated networks in the same AWS account. AWS Transit Gateway is a service that enables customers to connect their Amazon VPCs and their on-premises networks to a single gateway. An Internet gateway is a component that enables communication between instances in a VPC and the Internet. Amazon EC2 is a service that provides scalable compute capacity in the cloud³⁴

QUESTION 140

Which AWS service offers a global content delivery network (CDN) that helps companies securely deliver websites, videos, applications, and APIs at high speeds with low latency?

- A. Amazon EC2
- B. Amazon CloudFront
- C. Amazon CloudWatch
- D. AWS CloudFormation

Correct Answer: B

Section:

Explanation:

Amazon CloudFront is the AWS service that offers a global content delivery network (CDN) that helps companies securely deliver websites, videos, applications, and APIs at high speeds with low latency. Amazon CloudFront is a web service that speeds up distribution of static and dynamic web content, such as HTML, CSS, JavaScript, and image files, to users. Amazon CloudFront uses a global network of edge locations, located near users' geographic locations, to cache and serve content with high availability and performance. Amazon CloudFront also provides features such as AWS Shield for DDoS protection, AWS Certificate Manager for SSL/TLS encryption, AWS WAF for web application firewall, and AWS Lambda@Edge for customizing content delivery with serverless code. Amazon EC2, Amazon CloudWatch, and AWS CloudFormation are not services that offer a global CDN. Amazon EC2 is a service that provides scalable compute capacity in the cloud. Amazon CloudWatch is a service that provides monitoring and observability for AWS resources and applications. AWS CloudFormation is a service that provides a common language to model and provision AWS resources and their dependencies.

QUESTION 141

Which benefit of AWS Cloud computing provides lower latency between users and applications?

- A. Agility
- B. Economies of scale
- C. Global reach
- D. Pay-as-you-go pricing

Correct Answer: C

Section:

Explanation:

Global reach is the benefit of AWS Cloud computing that provides lower latency between users and applications. Global reach means that AWS customers can deploy their applications and data in multiple regions around the world, and deliver them to users with high performance and availability.

AWS has the largest global infrastructure of any cloud provider, with 25 geographic regions and 81 Availability Zones, as well as 216 Points of Presence in 84 cities across 42 countries. Customers can choose the optimal locations for their applications and data based on their business requirements, such as compliance, data sovereignty, and customer proximity. Agility, economies of scale, and pay-as-you-go pricing are other benefits of AWS Cloud computing, but they do not directly provide lower latency between users and applications. Agility means that AWS customers can quickly and easily provision and scale up or down AWS resources as needed, without upfront costs or long-term commitments. Economies of scale means that AWS customers can benefit from the lower costs and higher efficiency that AWS achieves by operating at a massive scale and passing the savings to the customers. Pay-as-you-go pricing means that AWS customers only pay for the AWS resources they use, without any upfront costs or long-term contracts.

QUESTION 142

Which design principles should a company apply to AWS Cloud workloads to maximize sustainability and minimize environmental impact? (Select TWO.)

- A. Maximize utilization of Amazon EC2 instances.
- B. Minimize utilization of Amazon EC2 instances.

- C. Minimize usage of managed services.
- D. Force frequent application reinstallations by users.
- E. Reduce the need for users to reinstall applications.

Correct Answer: A, E

Section:

Explanation:

To maximize sustainability and minimize environmental impact, a company should apply the following design principles to AWS Cloud workloads: maximize utilization of Amazon EC2 instances and reduce the need for users to reinstall applications. Maximizing utilization of Amazon EC2 instances means that the company can optimize the performance and efficiency of their compute resources, and avoid wasting energy and money on idle or underutilized instances. The company can use features such as Amazon EC2 Auto Scaling, Amazon EC2 Spot Instances, and AWS Compute Optimizer to automatically adjust the number and type of instances based on demand, cost, and performance. Reducing the need for users to reinstall applications means that the company can minimize the amount of data and bandwidth required to deliver their applications to users, and avoid unnecessary downloads and updates that consume energy and resources. The company can use services such as Amazon CloudFront, AWS AppStream 2.0, and AWS Amplify to deliver their applications faster, more securely, and more efficiently to users across the globe. Minimizing utilization of Amazon EC2 instances, minimizing usage of managed services, and forcing frequent application reinstallations by users are not design principles that would maximize sustainability and minimize environmental impact. Minimizing utilization of Amazon EC2 instances would reduce the performance and efficiency of the compute resources, and potentially increase the costs and complexity of the cloud workloads. Minimizing usage of managed services would increase the operational overhead and responsibility of the company, and potentially expose them to more security and reliability risks. Forcing frequent application reinstallations by users would increase the amount of data and bandwidth required to deliver the applications to users, and potentially degrade the user experience and satisfaction.

QUESTION 143

An ecommerce company wants to design a highly available application that will be hosted on multiple Amazon EC2 instances. How should the company deploy the EC2 instances to meet these requirements?

- A. Across multiple edge locations
- B. Across multiple VPCs
- C. Across multiple Availability Zones
- D. Across multiple AWS accounts



Correct Answer: C

Section:

Explanation:

The company should deploy the EC2 instances across multiple Availability Zones to design a highly available application. Availability Zones are isolated locations within an AWS Region that are engineered to be fault-tolerant and operate independently of each other. By deploying the EC2 instances across multiple Availability Zones, the company can ensure that their application can withstand the failure of an entire Availability Zone and continue to operate with minimal disruption.

Deploying the EC2 instances across multiple edge locations, VPCs, or AWS accounts will not provide the same level of availability and fault tolerance as Availability Zones. Edge locations are part of the Amazon CloudFront service, which is a content delivery network (CDN) that caches and serves web content to users. VPCs are virtual networks that isolate the AWS resources within an AWS Region. AWS accounts are the primary units of ownership and access control for AWS resources¹²

QUESTION 144

Which AWS Cloud design principle does a company follow by using AWS CloudTrail?

- A. Recover automatically.
- B. Perform operations as code.
- C. Measure efficiency.
- D. Ensure traceability.

Correct Answer: D

Section:

Explanation:

The company follows the AWS Cloud design principle of ensuring traceability by using AWS CloudTrail. AWS CloudTrail is a service that records the API calls and events made by or on behalf of the AWS account. The company

can use AWS CloudTrail to monitor, audit, and analyze the activity and changes in their AWS resources and applications. AWS CloudTrail helps the company to achieve compliance, security, governance, and operational efficiency. Recovering automatically, performing operations as code, and measuring efficiency are other AWS Cloud design principles, but they are not directly related to using AWS CloudTrail. Recovering automatically means that the company can design their cloud workloads to handle failures gracefully and resume normal operations without manual intervention. Performing operations as code means that the company can automate the creation, configuration, and management of their cloud resources using scripts or templates. Measuring efficiency means that the company can monitor and optimize the performance and utilization of their cloud resources and applications³⁴

QUESTION 145

A company wants to move its data warehouse application to the AWS Cloud. The company wants to run and scale its analytics services without needing to provision and manage data warehouse clusters. Which AWS service will meet these requirements?

- A. Amazon Redshift provisioned data warehouse
- B. Amazon Redshift Serverless
- C. Amazon Athena
- D. Amazon S3

Correct Answer: B

Section:

Explanation:

Amazon Redshift Serverless is the AWS service that will meet the requirements of the company that wants to move its data warehouse application to the AWS Cloud and run and scale its analytics services without needing to provision and manage data warehouse clusters. Amazon Redshift Serverless is a new feature of Amazon Redshift, which is a fully managed data warehouse service that allows customers to run complex queries and analytics on large volumes of structured and semistructured data. Amazon Redshift Serverless automatically scales the compute and storage resources based on the workload demand, and customers only pay for the resources they consume. Amazon Redshift Serverless also simplifies the management and maintenance of the data warehouse, as customers do not need to worry about choosing the right cluster size, resizing the cluster, or distributing the data across the nodes. Amazon Redshift provisioned data warehouse, Amazon Athena, and Amazon S3 are not the best services to meet the requirements of the company. Amazon Redshift provisioned data warehouse requires customers to choose the number and type of nodes for their cluster, and manually resize the cluster if their workload changes. Amazon Athena is a serverless query service that allows customers to analyze data stored in Amazon S3 using standard SQL, but it is not a data warehouse service that can store and organize the data. Amazon S3 is a scalable object storage service that can store any amount and type of data, but it is not a data warehouse service that can run complex queries and analytics on the data.

QUESTION 146

Which tasks are the responsibility of AWS according to the AWS shared responsibility model? (Select TWO.)

- A. Configure AWS Identity and Access Management (IAM).
- B. Configure security groups on Amazon EC2 instances.
- C. Secure the access of physical AWS facilities.
- D. Patch applications that run on Amazon EC2 instances.
- E. Perform infrastructure patching and maintenance.

Correct Answer: C, E

Section:

Explanation:

The tasks that are the responsibility of AWS according to the AWS shared responsibility model are securing the access of physical AWS facilities and performing infrastructure patching and maintenance. The AWS shared responsibility model defines the division of responsibilities between AWS and the customer for security and compliance. AWS is responsible for the security of the cloud, which includes the physical security of the hardware, software, networking, and facilities that run the AWS services. AWS is also responsible for the maintenance and patching of the infrastructure that supports the AWS services. The customer is responsible for the security in the cloud, which includes the configuration and management of the AWS resources and applications that they use. Configuring AWS Identity and Access Management (IAM), configuring security groups on Amazon EC2 instances, and patching applications that run on Amazon EC2 instances are tasks that are the responsibility of the customer, not AWS.

QUESTION 147

A company is running an order processing system on Amazon EC2 instances. The company wants to migrate microservices-based application. Which combination of AWS services can the application use to meet these requirements? (Select TWO.)

- A. Amazon Simple Queue Service (Amazon SQS)
- B. AWS Lambda
- C. AWS Migration Hub
- D. AWS AppSync
- E. AWS Application Migration Service

Correct Answer: A, B

Section:

Explanation:

The combination of AWS services that the application can use to migrate to a microservices-based application are Amazon Simple Queue Service (Amazon SQS) and AWS Lambda. Amazon SQS is a fully managed message queuing service that enables customers to decouple and scale microservices, distributed systems, and serverless applications. The application can use Amazon SQS to send, store, and receive messages between the microservices, ensuring that each message is processed only once and in the right order. AWS Lambda is a serverless compute service that allows customers to run code without provisioning or managing servers. The application can use AWS Lambda to create and deploy microservices as functions that are triggered by events, such as messages from Amazon SQS. AWS Migration Hub, AWS AppSync, and AWS Application Migration Service are not the best services to use for migrating to a microservices-based application. AWS Migration Hub is a service that provides a single location to track the progress of application migrations across multiple AWS and partner solutions. AWS AppSync is a service that simplifies the development of GraphQL APIs for real-time and offline data synchronization. AWS Application Migration Service is a service that enables customers to migrate their on-premises applications to AWS without making any changes to the applications, servers, or databases.

QUESTION 148

A company wants to access a report about the estimated environmental impact of the company's AWS usage. Which AWS service or feature should the company use to meet this requirement?

- A. AWS Organizations
- B. IAM policy
- C. AWS Billing console
- D. Amazon Simple Notification Service (Amazon SNS)



Correct Answer: C

Section:

Explanation:

The company should use the AWS Billing console to access a report about the estimated environmental impact of the company's AWS usage. The AWS Billing console provides customers with various tools and reports to manage and monitor their AWS costs and usage. One of the reports available in the AWS Billing console is the AWS Sustainability Dashboard, which shows the estimated carbon footprint and energy mix of the customer's AWS usage. The company can use this dashboard to measure and improve the sustainability of their cloud workloads. AWS Organizations, IAM policy, and Amazon Simple Notification Service (Amazon SNS) are not services or features that can provide a report about the estimated environmental impact of the company's AWS usage. AWS Organizations is a service that enables customers to centrally manage and govern their AWS accounts. IAM policy is a document that defines the permissions for an IAM identity (user, group, or role) or an AWS resource. Amazon SNS is a fully managed pub/sub messaging service that enables customers to send messages to subscribers or other AWS services.

QUESTION 149

A company has an AWS-hosted website located behind an Application Load Balancer. The company wants to safeguard the website from SQL injection or cross-site scripting. Which AWS service should the company use?

- A. Amazon GuardDuty
- B. AWS WAF
- C. AWS Trusted Advisor
- D. Amazon Inspector

Correct Answer: B

Section:

Explanation:

The company should use AWS WAF to safeguard the website from SQL injection or cross-site scripting. AWS WAF is a web application firewall that helps protect web applications from common web exploits that could affect availability, compromise security, or consume excessive resources. The company can use AWS WAF to create custom rules that block malicious requests that match certain patterns, such as SQL injection or cross-site scripting. AWS WAF can be applied to web applications that are behind an Application Load Balancer, Amazon CloudFront, or Amazon API Gateway. Amazon GuardDuty, AWS Trusted Advisor, and Amazon Inspector are not the best services to use for this purpose. Amazon GuardDuty is a threat detection service that monitors for malicious activity and unauthorized behavior across the AWS accounts and resources. AWS Trusted Advisor is a service that provides best practice recommendations for cost optimization, performance, security, and fault tolerance. Amazon Inspector is a service that assesses the security and compliance of applications running on Amazon EC2 instances¹²

QUESTION 150

A company needs to host a web server on Amazon EC2 instances for at least 1 year. The web server cannot tolerate interruption. Which EC2 instance purchasing option will meet these requirements MOST cost-effectively?

- A. On-Demand Instances
- B. Partial Upfront Reserved Instances
- C. Spot Instances
- D. No Upfront Reserved Instances

Correct Answer: B

Section:**Explanation:**

The most cost-effective EC2 instance purchasing option for the company that needs to host a web server on Amazon EC2 instances for at least 1 year and cannot tolerate interruption is Partial Upfront Reserved Instances. Reserved Instances are a pricing model that offer significant discounts compared to On-Demand Instances in exchange for a commitment to use a specific amount of compute capacity for a fixed period of time (1 or 3 years). Partial Upfront Reserved Instances require customers to pay a portion of the total cost upfront, and the remaining cost in monthly installments over the term. This option offers a lower effective hourly rate than No Upfront Reserved Instances, which require no upfront payment but have higher monthly payments. On-Demand Instances and Spot Instances are not the best options for the company. On-Demand Instances are a pricing model that offer the most flexibility and no long-term commitment, but have the highest hourly rate. Spot Instances are a pricing model that offer the lowest cost, but are subject to interruption based on supply and demand³⁴

QUESTION 151

A company runs a database on Amazon Aurora in the us-east-1 Region. The company has a disaster recovery requirement that the database be available in another Region. Which solution meets this requirement with minimal disruption to the database operations?

- A. Perform an Aurora Multi-AZ deployment.
- B. Deploy Aurora cross-Region read replicas.
- C. Create Amazon Elastic Block Store (Amazon EBS) volume snapshots for Aurora and copy them to another Region.
- D. Deploy Aurora Replicas.

Correct Answer: B

Section:**Explanation:**

The solution that meets the requirement of the company that runs a database on Amazon Aurora in the us-east-1 Region and has a disaster recovery requirement that the database be available in another Region with minimal disruption to the database operations is to deploy Aurora cross-Region read replicas. Aurora cross-Region read replicas are secondary Aurora clusters that are created in a different AWS Region from the primary Aurora cluster, and are kept in sync with the primary cluster using physical replication. The company can use Aurora cross-Region read replicas to improve the availability and durability of the database, as well as to reduce the recovery time objective (RTO) and recovery point objective (RPO) in case of a regional disaster. Performing an Aurora Multi-AZ deployment, creating Amazon EBS volume snapshots for Aurora and copying them to another Region, and deploying Aurora Replicas are not the best solutions for this requirement. An Aurora Multi-AZ deployment is a configuration that creates one or more Aurora Replicas within the same AWS Region as the primary Aurora cluster, and provides automatic failover in case of an Availability Zone outage. However, this does not provide cross-Region disaster recovery. Creating Amazon EBS volume snapshots for Aurora and copying them to another Region is a manual process that requires stopping the database, creating the snapshots, copying them to the target Region, and restoring them to a new Aurora cluster. This process can cause significant downtime and data loss. Deploying Aurora Replicas is a configuration that creates one or more secondary Aurora clusters within the same AWS Region as the primary Aurora cluster, and provides read scaling and high availability. However, this does not provide cross-Region disaster recovery.

QUESTION 152

Which AWS service requires the customer to patch the guest operating system?

- A. AWS Lambda
- B. Amazon OpenSearch Service
- C. Amazon EC2
- D. Amazon ElastiCache

Correct Answer: C

Section:

Explanation:

The AWS service that requires the customer to patch the guest operating system is Amazon EC2.

Amazon EC2 is a service that provides scalable compute capacity in the cloud, and allows customers to launch and run virtual servers, called instances, with a variety of operating systems, configurations, and specifications. The customer is responsible for patching and updating the guest operating system and any applications that run on the EC2 instances, as part of the security in the cloud. AWS Lambda, Amazon OpenSearch Service, and Amazon ElastiCache are not services that require the customer to patch the guest operating system. AWS Lambda is a serverless compute service that allows customers to run code without provisioning or managing servers. Amazon OpenSearch Service is a fully managed service that makes it easy to deploy, operate, and scale OpenSearch clusters in the AWS Cloud. Amazon ElastiCache is a fully managed service that provides in-memory data store and cache solutions, such as Redis and Memcached. These services are managed by AWS, and AWS is responsible for patching and updating the underlying infrastructure and software.

QUESTION 153

Which benefit of the AWS Cloud helps companies achieve lower usage costs because of the aggregate usage of all AWS users?

- A. No need to guess capacity
- B. Ability to go global in minutes
- C. Economies of scale
- D. Increased speed and agility

Correct Answer: C

Section:

Explanation:

The benefit of the AWS Cloud that helps companies achieve lower usage costs because of the aggregate usage of all AWS users is economies of scale. Economies of scale means that AWS can achieve lower costs and higher efficiency by operating at a massive scale and passing the savings to the customers. AWS leverages the aggregate usage of all AWS users to negotiate better prices with hardware vendors, optimize power consumption, and improve operational processes. As a result, AWS can offer lower and more flexible pricing options to the customers, such as pay-as-you-go, reserved, and spot pricing models. No need to guess capacity, ability to go global in minutes, and increased speed and agility are other benefits of the AWS Cloud, but they are not directly related to the aggregate usage of all AWS users. No need to guess capacity means that AWS customers can avoid the risk of over-provisioning or under-provisioning resources, and scale up or down as needed.

Ability to go global in minutes means that AWS customers can deploy their applications and data in multiple regions around the world, and deliver them to users with high performance and availability.

Increased speed and agility means that AWS customers can quickly and easily provision and access AWS resources, and accelerate their innovation and time to market.

QUESTION 154

Which options are common stakeholders for the AWS Cloud Adoption Framework (AWS CAF) platform perspective? (Select TWO.)

- A. Chief financial officers (CFOs)
- B. IT architects
- C. Chief information officers (CIOs)
- D. Chief data officers (CDOs)
- E. Engineers

Correct Answer: B, E

Section:

Explanation:



The common stakeholders for the AWS Cloud Adoption Framework (AWS CAF) platform perspective are IT architects and engineers. The AWS CAF is a guidance that helps organizations design and travel an accelerated path to successful cloud adoption. The AWS CAF organizes the cloud adoption process into six areas of focus, called perspectives, which are business, people, governance, platform, security, and operations. Each perspective is divided into capabilities, which are further divided into skills and responsibilities. The platform perspective focuses on the provisioning and management of the cloud infrastructure and services that support the business applications. The platform perspective capabilities are design, implementation, and optimization. The stakeholders for the platform perspective are the IT architects and engineers who are responsible for designing, implementing, and optimizing the cloud platform. Chief financial officers (CFOs), chief information officers (CIOs), and chief data officers (CDOs) are not the common stakeholders for the AWS CAF platform perspective. CFOs are the common stakeholders for the AWS CAF business perspective, which focuses on the value realization of the cloud adoption. CIOs are the common stakeholders for the AWS CAF governance perspective, which focuses on the alignment of the IT strategy and processes with the business strategy and goals. CDOs are the common stakeholders for the AWS CAF security perspective, which focuses on the protection of the information assets and systems in the cloud.

QUESTION 155

A company wants to migrate to the AWS Cloud. The company needs the ability to acquire resources when the resources are necessary.

The company also needs the ability to release those resources when the resources are no longer necessary.

Which architecture concept of the AWS Cloud meets these requirements?

- A. Elasticity
- B. Availability
- C. Reliability
- D. Durability

Correct Answer: A

Section:

Explanation:

The architecture concept of the AWS Cloud that meets the requirements of the company that wants to migrate to the AWS Cloud and needs the ability to acquire and release resources as needed is elasticity. Elasticity means that AWS customers can quickly and easily provision and scale up or down AWS resources as their demand changes, without any upfront costs or long-term commitments. AWS provides various tools and services that enable customers to achieve elasticity, such as Amazon EC2 Auto Scaling, Amazon CloudWatch, and AWS CloudFormation. Elasticity helps customers optimize their performance, availability, and cost efficiency. Availability, reliability, and durability are other architecture concepts of the AWS Cloud, but they are not directly related to the ability to acquire and release resources as needed. Availability means that AWS customers can access their AWS resources and applications whenever and wherever they need them. Reliability means that AWS customers can depend on their AWS resources and applications to function correctly and consistently. Durability means that AWS customers can preserve their data and objects for long periods of time without loss or corruption¹²

QUESTION 156

Which AWS service or tool provides recommendations to help users get rightsized Amazon EC2 instances based on historical workload usage data?

- A. AWS Pricing Calculator
- B. AWS Compute Optimizer
- C. AWS App Runner
- D. AWS Systems Manager

Correct Answer: B

Section:

Explanation:

The AWS service or tool that provides recommendations to help users get rightsized Amazon EC2 instances based on historical workload usage data is AWS Compute Optimizer. AWS Compute Optimizer is a service that analyzes the configuration and performance of the AWS resources, such as Amazon EC2 instances, and provides recommendations for optimal resource types and sizes based on the workload patterns and metrics. AWS Compute Optimizer helps users improve the performance, availability, and cost efficiency of their AWS resources. AWS Pricing Calculator, AWS App Runner, and AWS Systems Manager are not the best services or tools to use for this purpose. AWS Pricing Calculator is a tool that helps users estimate the cost of using AWS services based on their requirements and preferences. AWS App Runner is a service that helps users easily and quickly deploy web applications and APIs without managing any infrastructure. AWS Systems Manager is a service that helps users automate and manage the configuration and operation of their AWS resources and applications³⁴

QUESTION 157

Which AWS service is designed to help users orchestrate a workflow process for a set of AWS Lambda functions?

- A. Amazon DynamoDB
- B. AWS CodePipeline
- C. AWS Batch
- D. AWS Step Functions

Correct Answer: D

Section:

Explanation:

The AWS service that is designed to help users orchestrate a workflow process for a set of AWS Lambda functions is AWS Step Functions. AWS Step Functions is a service that helps users coordinate multiple AWS services into serverless workflows that can be triggered by events, such as messages, API calls, or schedules. AWS Step Functions allows users to create and visualize complex workflows that can include branching, parallel execution, error handling, retries, and timeouts. AWS Step Functions can integrate with AWS Lambda to orchestrate a sequence of Lambda functions that perform different tasks or logic. Amazon DynamoDB, AWS CodePipeline, and AWS Batch are not the best services to use for orchestrating a workflow process for a set of AWS Lambda functions. Amazon DynamoDB is a fully managed NoSQL database service that provides fast and consistent performance, scalability, and flexibility. AWS CodePipeline is a fully managed continuous delivery service that helps users automate the release process of their applications. AWS Batch is a fully managed service that helps users run batch computing workloads on the AWS Cloud.

QUESTION 158

Which options are perspectives that include foundational capabilities of the AWS Cloud Adoption Framework (AWS CAF)? (Select TWO.)

- A. Sustainability
- B. Security
- C. Operations
- D. Performance efficiency
- E. Reliability

Correct Answer: C, D

Section:

Explanation:

The options that are perspectives that include foundational capabilities of the AWS Cloud Adoption Framework (AWS CAF) are operations and performance efficiency. The AWS CAF is a guidance that helps organizations design and travel an accelerated path to successful cloud adoption. The AWS CAF organizes the cloud adoption process into six areas of focus, called perspectives, which are business, people, governance, platform, security, and operations. Each perspective is divided into capabilities, which are further divided into skills and responsibilities. The operations perspective focuses on the management and monitoring of the cloud resources and applications, as well as the automation and optimization of the operational processes. The operations perspective capabilities are operations support, operations integration, and service management. The performance efficiency perspective focuses on the selection and configuration of the right cloud resources and services to meet the performance requirements of the applications, as well as the continuous improvement and innovation of the cloud solutions. The performance efficiency perspective capabilities are selection, review, and monitoring. Sustainability, security, and reliability are not perspectives of the AWS CAF, but they are aspects of the AWS Well-Architected Framework. The AWS Well-Architected Framework is a guidance that helps users build and operate secure, reliable, efficient, and cost-effective systems in the cloud. The AWS Well-Architected Framework consists of five pillars, which are operational excellence, security, reliability, performance efficiency, and cost optimization. Sustainability is a cross-cutting theme that applies to all the pillars, and refers to the environmental and social impact of the cloud solutions.

QUESTION 159

Which perspective of the AWS Cloud Adoption Framework (AWS CAF) connects technology and business?

- A. Operations
- B. People
- C. Security
- D. Governance

Correct Answer: D

Section:

Explanation:



The perspective of the AWS Cloud Adoption Framework (AWS CAF) that connects technology and business is governance. The governance perspective focuses on the alignment of the IT strategy and processes with the business strategy and goals, as well as the management of the IT budget, risk, and compliance. The governance perspective capabilities are portfolio management, business performance management, and IT governance. The governance perspective helps organizations ensure that their cloud adoption delivers the expected business value and outcomes, and that their cloud solutions are secure, reliable, and compliant. Operations, people, and security are other perspectives of the AWS CAF, but they do not directly connect technology and business. The operations perspective focuses on the management and monitoring of the cloud resources and applications, as well as the automation and optimization of the operational processes. The people perspective focuses on the development and empowerment of the human resources, as well as the transformation of the organizational culture and structure. The security perspective focuses on the protection of the information assets and systems in the cloud, as well as the implementation of the security policies and controls.

QUESTION 160

A company needs to host a highly available application in the AWS Cloud. The application runs infrequently for short periods of time. Which AWS service will meet these requirements with the LEAST amount of operational overhead?

- A. Amazon EC2
- B. AWS Fargate
- C. AWS Lambda
- D. Amazon Aurora

Correct Answer: C

Section:

Explanation:

The AWS service that will meet the requirements of the company that needs to host a highly available application in the AWS Cloud that runs infrequently for short periods of time with the least amount of operational overhead is AWS Lambda. AWS Lambda is a serverless compute service that allows customers to run code without provisioning or managing servers. The company can use AWS Lambda to create and deploy their application as functions that are triggered by events, such as API calls, messages, or schedules. AWS Lambda automatically scales the compute resources based on the demand, and customers only pay for the compute time they consume. AWS Lambda also simplifies the management and maintenance of the application, as customers do not need to worry about the underlying infrastructure, security, or availability. Amazon EC2, AWS Fargate, and Amazon Aurora are not the best services to use for this purpose. Amazon EC2 is a service that provides scalable compute capacity in the cloud, and allows customers to launch and run virtual servers, called instances, with a variety of operating systems, configurations, and specifications. Amazon EC2 requires customers to provision and manage the instances, and pay for the instance hours they use, regardless of the application usage. AWS Fargate is a serverless compute engine for containers that allows customers to run containerized applications without managing servers or clusters. AWS Fargate requires customers to specify the amount of CPU and memory resources for each container, and pay for the resources they allocate, regardless of the application usage. Amazon Aurora is a fully managed relational database service that provides high performance, availability, and compatibility. Amazon Aurora is not a compute service, and it is not suitable for hosting an application that runs infrequently for short periods of time.

QUESTION 161

A company is planning a migration to the AWS Cloud and wants to examine the costs that are associated with different workloads. Which AWS tool will meet these requirements?

- A. AWS Budgets
- B. AWS Cost Explorer
- C. AWS Pricing Calculator
- D. AWS Cost and Usage Report

Correct Answer: C

Section:

Explanation:

The AWS tool that will meet the requirements of the company that is planning a migration to the AWS Cloud and wants to examine the costs that are associated with different workloads is AWS Pricing Calculator. AWS Pricing Calculator is a tool that helps customers estimate the cost of using AWS services based on their requirements and preferences. The company can use AWS Pricing Calculator to compare the costs of different AWS services and configurations, such as Amazon EC2, Amazon S3, Amazon RDS, and more. AWS Pricing Calculator also provides detailed breakdowns of the cost components, such as compute, storage, network, and data transfer. AWS Pricing Calculator helps customers plan and optimize their cloud budget and migration strategy. AWS Budgets, AWS Cost Explorer, and AWS Cost and Usage Report are not the best tools to use for this purpose. AWS Budgets is a tool that helps customers monitor and manage their AWS spending and usage against predefined budget limits and thresholds. AWS Cost Explorer is a tool that helps customers analyze and visualize their AWS spending and usage trends over time. AWS Cost and Usage Report is a tool that helps customers access comprehensive and granular information about their AWS costs and usage in a CSV or Parquet file. These tools are more useful for tracking and optimizing the existing AWS costs and usage, rather than estimating the costs of different workloads.

QUESTION 162

A company is hosting a web application on Amazon EC2 instances. The company wants to implement custom conditions to filter and control inbound web traffic. Which AWS service will meet these requirements?

- A. Amazon GuardDuty
- B. AWS WAF
- C. Amazon Macie
- D. AWS Shield

Correct Answer: B

Section:

Explanation:

The AWS service that will meet the requirements of the company that is hosting a web application on Amazon EC2 instances and wants to implement custom conditions to filter and control inbound web traffic is AWS WAF. AWS WAF is a web application firewall that helps protect web applications from common web exploits that could affect availability, compromise security, or consume excessive resources. The company can use AWS WAF to create custom rules that block malicious requests that match certain patterns, such as SQL injection or cross-site scripting. AWS WAF can be applied to web applications that are behind an Application Load Balancer, Amazon CloudFront, or Amazon API Gateway. Amazon GuardDuty, Amazon Macie, and AWS Shield are not the best services to use for this purpose. Amazon GuardDuty is a threat detection service that monitors for malicious activity and unauthorized behavior across the AWS accounts and resources. Amazon Macie is a data security and data privacy service that uses machine learning and pattern matching to discover, classify, and protect sensitive data stored in Amazon S3. AWS Shield is a managed distributed denial of service (DDoS) protection service that safeguards web applications running on AWS. These services are more useful for detecting and preventing different types of threats and attacks, rather than filtering and controlling inbound web traffic based on custom conditions.

QUESTION 163

A company wants to create a chatbot and integrate the chatbot with its current web application. Which AWS service will meet these requirements?

- A. AmazonKendra
- B. Amazon Lex
- C. AmazonTextract
- D. AmazonPolly

Correct Answer: B

Section:

Explanation:

The AWS service that will meet the requirements of the company that wants to create a chatbot and integrate the chatbot with its current web application is Amazon Lex. Amazon Lex is a service that helps customers build conversational interfaces using voice and text. The company can use Amazon Lex to create a chatbot that can understand natural language and respond to user requests, using the same deep learning technologies that power Amazon Alexa. Amazon Lex also provides easy integration with other AWS services, such as Amazon Comprehend, Amazon Polly, and AWS Lambda, as well as popular platforms, such as Facebook Messenger, Slack, and Twilio. Amazon Lex helps customers create engaging and interactive chatbots for their web applications. Amazon Kendra, Amazon Textract, and Amazon Polly are not the best services to use for this purpose. Amazon Kendra is a service that helps customers provide accurate and natural answers to natural language queries using machine learning. Amazon Textract is a service that helps customers extract text and data from scanned documents using optical character recognition (OCR) and machine learning. Amazon Polly is a service that helps customers convert text into lifelike speech using deep learning. These services are more useful for different types of natural language processing and generation tasks, rather than creating and integrating chatbots.

QUESTION 164

Which AWS service is used to temporarily provide federated security credentials to a _____

- A. Amazon GuardDuty
- B. AWS Simple Token Service (AWS STS)
- C. AWS Secrets Manager
- D. AWS Certificate Manager



Correct Answer: B

Section:

Explanation:

The AWS service that is used to temporarily provide federated security credentials to a user is AWS Security Token Service (AWS STS). AWS STS is a service that enables customers to request temporary, limited-privilege credentials for AWS Identity and Access Management (IAM) users or for users that they authenticate (federated users). The company can use AWS STS to grant federated users access to AWS resources without creating permanent IAM users or sharing long-term credentials. AWS STS helps customers manage and secure access to their AWS resources for federated users. Amazon GuardDuty, AWS Secrets Manager, and AWS Certificate Manager are not the best services to use for this purpose. Amazon GuardDuty is a threat detection service that monitors for malicious activity and unauthorized behavior across the AWS accounts and resources. AWS Secrets Manager is a service that helps customers manage and rotate secrets, such as database credentials, API keys, and passwords. AWS Certificate Manager is a service that helps customers provision, manage, and deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for use with AWS services and internal connected resources. These services are more useful for different types of security and compliance tasks, rather than providing temporary federated security credentials to a user.

QUESTION 165

A company wants to securely store Amazon RDS database credentials and automatically rotate user passwords periodically. Which AWS service or capability will meet these requirements?

- A. Amazon S3
- B. AWS Systems Manager Parameter Store
- C. AWS Secrets Manager
- D. AWS CloudTrail

Correct Answer: C

Section:

Explanation:

AWS Secrets Manager is a service that helps you protect access to your applications, services, and IT resources. This service enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle¹. Amazon S3 is a storage service that does not offer automatic rotation of credentials. AWS Systems Manager Parameter Store is a service that provides secure, hierarchical storage for configuration data management and secrets management², but it does not offer automatic rotation of credentials. AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account³, but it does not store or rotate credentials.

QUESTION 166

A company has an application that runs periodically in an on-premises environment. The application runs for a few hours most days, but runs for 8 hours a day for a week at the end of each month. Which AWS service or feature should be used to host the application in the AWS Cloud?

- A. Amazon EC2 Standard Reserved Instances
- B. Amazon EC2 On-Demand Instances
- C. AWS Wavelength
- D. Application Load Balancer

Correct Answer: B

Section:

Explanation:

Amazon EC2 On-Demand Instances are instances that you pay for by the second, with no long-term commitments or upfront payments⁴. This option is suitable for applications that have unpredictable or intermittent workloads, such as the one described in the question. Amazon EC2 Standard Reserved Instances are instances that you purchase for a one-year or three-year term, and pay a lower hourly rate compared to On-Demand Instances. This option is suitable for applications that have steady state or predictable usage. AWS Wavelength is a service that enables developers to build applications that deliver ultra-low latency to mobile devices and users by deploying AWS compute and storage at the edge of the 5G network. This option is not relevant for the application described in the question. Application Load Balancer is a type of load balancer that operates at the application layer and distributes traffic based on the content of the request. This option is not a service or feature to host the application, but rather to balance the traffic among multiple instances.

QUESTION 167

A company is reviewing the design of an application that will be migrated from on premises to a single Amazon EC2 instance. What should the company do to make the application highly available?

- A. Provision additional EC2 instances in other Availability Zones.
- B. Configure an Application Load Balancer (ALB). Assign the EC2 instance as the ALB's target.
- C. Use an Amazon Machine Image (AMI) to create the EC2 instance.
- D. Provision the application by using an EC2 Spot Instance.

Correct Answer: A

Section:

Explanation:

Provisioning additional EC2 instances in other Availability Zones is a way to make the application highly available, as it reduces the impact of failures and increases fault tolerance. Configuring an Application Load Balancer and assigning the EC2 instance as the ALB's target is a way to distribute traffic among multiple instances, but it does not make the application highly available if there is only one instance. Using an Amazon Machine Image to create the EC2 instance is a way to launch a virtual server with a preconfigured operating system and software, but it does not make the application highly available by itself. Provisioning the application by using an EC2 Spot Instance is a way to use spare EC2 capacity at up to 90% off the On-Demand price, but it does not make the application highly available, as Spot Instances can be interrupted by EC2 with a two-minute notification.

QUESTION 168

Which AWS service provides a highly accurate and easy-to-use enterprise search service that is powered by machine learning (ML)?

- A. Amazon Kendra
- B. Amazon SageMaker
- C. Amazon Augmented AI (Amazon A2I)
- D. Amazon Polly

Correct Answer: A

Section:

Explanation:

Amazon Kendra is a service that provides a highly accurate and easy-to-use enterprise search service that is powered by machine learning. Kendra delivers powerful natural language search capabilities to your websites and applications so your end users can more easily find the information they need within the vast amount of content spread across your company. Amazon SageMaker is a service that provides a fully managed platform for data scientists and developers to quickly and easily build, train, and deploy machine learning models at any scale. Amazon Augmented AI (Amazon A2I) is a service that makes it easy to build the workflows required for human review of ML predictions.

Amazon A2I brings human review to all developers, removing the undifferentiated heavy lifting associated with building human review systems or managing large numbers of human reviewers.

Amazon Polly is a service that turns text into lifelike speech, allowing you to create applications that talk, and build entirely new categories of speech-enabled products. None of these services provide an enterprise search service that is powered by machine learning.

QUESTION 169

A company provides a software as a service (SaaS) application. The company has a new customer that is based in a different country.

The new customer's data needs to be hosted in that country.

Which AWS service or infrastructure component should the company use to meet this requirement?

- A. AWS Shield
- B. Amazon S3 Object Lock
- C. AWS Regions
- D. Placement groups

Correct Answer: C

Section:

Explanation:

AWS Regions are geographic areas around the world where AWS has clusters of data centers. Each AWS Region consists of multiple, isolated, and physically separate AZ's within a geographic area. By hosting the customer's data in a specific AWS Region, the company can meet the requirement of hosting the data in the customer's country. AWS Shield is a service that provides always-on detection and automatic inline mitigations that minimize



application downtime and latency, so there is no need to engage AWS Support to benefit from DDoS protection. Amazon S3 Object Lock is a feature that allows you to store objects using a write-once-read-many (WORM) model. You can use it to prevent an object from being deleted or overwritten for a fixed amount of time or indefinitely.

Placement groups are logical grouping of instances within a single Availability Zone. Placement groups enable applications to participate in a low-latency, 10 Gbps network. None of these services or infrastructure components can help the company host the customer's data in a different country.

QUESTION 170

Which credential allows programmatic access to AWS resources for use from the AWS CLI or the AWS API?

- A. User name and password
- B. Access keys
- C. SSH public keys
- D. AWS Key Management Service (AWS KMS) keys

Correct Answer: B

Section:

Explanation:

Access keys are long-term credentials that consist of an access key ID and a secret access key. You use access keys to sign programmatic requests that you make to AWS using the AWS CLI or AWS API¹. User name and password are credentials that you use to sign in to the AWS Management Console or the AWS Management Console mobile app². SSH public keys are credentials that you use to authenticate with EC2 instances that are launched from certain Linux AMIs³. AWS Key Management Service (AWS KMS) keys are customer master keys (CMKs) that you use to encrypt and decrypt your data and to control access to your data across AWS services and in your applications⁴.

QUESTION 171

A company has developed a distributed application that recovers gracefully from interruptions. The application periodically processes large volumes of data by using multiple Amazon EC2 instances.

The application is sometimes idle for months.

Which EC2 instance purchasing option is MOST cost-effective for this use case?

- A. Reserved Instances
- B. Spot Instances
- C. Dedicated Instances
- D. On-Demand Instances

Correct Answer: B

Section:

Explanation:

Spot Instances are instances that use spare EC2 capacity that is available for up to 90% off the On-Demand price. Because Spot Instances can be interrupted by EC2 with two minutes of notification when EC2 needs the capacity back, you can use them for applications that have flexible start and end times, or that can withstand interruptions⁵. This option is most cost-effective for the use case described in the question. Reserved Instances are instances that you purchase for a one-year or three-year term, and pay a lower hourly rate compared to On-Demand Instances. This option is suitable for applications that have steady state or predictable usage. Dedicated Instances are instances that run on hardware that's dedicated to a single customer within an Amazon VPC. This option is suitable for applications that have stringent regulatory or compliance requirements. On-Demand Instances are instances that you pay for by the second, with no long-term commitments or upfront payments. This option is suitable for applications that have unpredictable or intermittent workloads.

QUESTION 172

A company is running workloads for multiple departments within a single VPC. The company needs to be able to bill each department for its resource usage.

Which action should the company take to accomplish this goal with the LEAST operational overhead?

- A. Add a department tag to each resource and configure cost allocation tags.
- B. Move each department resource to its own VPC.
- C. Move each department resource to its own AWS account.
- D. Use AWS Organizations to get a billing report for each department.

Correct Answer: A

Section:

Explanation:

Adding a department tag to each resource and configuring cost allocation tags is an action that can help you accomplish the goal of billing each department for its resource usage with the least operational overhead. Tags are simple labels consisting of a key and an optional value that you can assign to AWS resources. You can use tags to organize your resources and track your AWS costs on a detailed level. Cost allocation tags enable you to track your AWS costs on a detailed level. After you activate cost allocation tags, AWS uses the cost allocation tags to organize your resource costs on your cost allocation report, to make it easier for you to categorize and track your AWS costs². Moving each department resource to its own VPC or its own AWS account is an action that can help you isolate and control the resources for each department, but it would incur more operational overhead than using tags. Using AWS Organizations to get a billing report for each department is an action that can help you consolidate billing and payment across multiple AWS accounts, but it would not help you bill each department for its resource usage within a single VPC.

QUESTION 173

A large company has multiple departments. Each department has its own AWS account. Each department has purchased Amazon EC2 Reserved Instances. Some departments do not use all the Reserved Instances that they purchased, and other departments need more Reserved Instances than they purchased.

The company needs to manage the AWS accounts for all the departments so that the departments can share the Reserved Instances.

Which AWS service or tool should the company use to meet these requirements?

- A. AWS Systems Manager
- B. Cost Explorer
- C. AWS Trusted Advisor
- D. AWS Organizations

Correct Answer: D

Section:

Explanation:

AWS Organizations is a service that enables you to consolidate multiple AWS accounts into an organization that you create and centrally manage. With AWS Organizations, you can apply service control policies (SCPs) across multiple AWS accounts to restrict what services and actions users and roles can access. You can also use AWS Organizations to enable features such as consolidated billing, AWS Config rules and conformance packs, and AWS CloudFormation StackSets across multiple accounts³. One of the benefits of using AWS Organizations is that you can share your Reserved Instances (RIs) with all of the accounts in your organization. This enables you to take advantage of the billing benefits of RIs without having to specify which account will use them⁴. AWS Systems Manager is a service that gives you visibility and control of your infrastructure on AWS. Cost Explorer is a tool that enables you to visualize, understand, and manage your AWS costs and usage over time. AWS Trusted Advisor is a service that provides real-time guidance to help you provision your resources following AWS best practices. None of these services or tools can help you manage the AWS accounts for all the departments so that the departments can share the Reserved Instances.

QUESTION 174

A manufacturing company has a critical application that runs at a remote site that has a slow internet connection. The company wants to migrate the workload to AWS. The application is sensitive to latency and interruptions in connectivity. The company wants a solution that can host this application with minimum latency.

Which AWS service or feature should the company use to meet these requirements?

- A. Availability Zones
- B. AWS Local Zones
- C. AWS Wavelength
- D. AWS Outposts

Correct Answer: D

Section:

Explanation:

AWS Outposts is a service that offers fully managed and configurable compute and storage racks built with AWS-designed hardware that allow you to run your workloads on premises and seamlessly connect to AWS services in the cloud. AWS Outposts is ideal for workloads that require low latency, local data processing, or local data storage. With AWS Outposts, you can use the same AWS APIs, tools, and infrastructure across on premises and the cloud to deliver a truly consistent hybrid experience⁵. Availability Zones are isolated locations within each AWS Region that are engineered to be fault-tolerant and provide high availability. AWS Local Zones are extensions of AWS Regions that are placed closer to large population, industry, and IT centers where no AWS Region exists today.

AWS Wavelength is a service that enables developers to build applications that deliver ultra-low latency to mobile devices and users by deploying AWS compute and storage at the edge of the 5G network. None of these

services or features can help you host a critical application with minimum latency at a remote site that has a slow internet connection.

QUESTION 175

Which AWS services can a company use to host and run a MySQL database? (Select TWO.)

- A. Amazon RDS
- B. Amazon DynamoDB
- C. Amazon S3
- D. Amazon EC2
- E. Amazon MQ

Correct Answer: A, D

Section:

Explanation:

Amazon RDS and Amazon EC2 are two AWS services that you can use to host and run a MySQL database. Amazon RDS is a service that makes it easy to set up, operate, and scale a relational database in the cloud. You can use Amazon RDS to launch a MySQL database instance and let Amazon RDS manage common database tasks such as backups, patching, scaling, and replication⁶.

Amazon EC2 is a service that provides secure, resizable compute capacity in the cloud. You can use Amazon EC2 to launch a virtual server and install MySQL software on it. You have complete control over your database configuration, but you are responsible for managing and maintaining the database software and the underlying infrastructure⁷. Amazon DynamoDB is a key-value and document database that delivers single-digit millisecond performance at any scale. Amazon S3 is an object storage service that offers industry-leading scalability, data availability, security, and performance. Amazon MQ is a managed message broker service for Apache ActiveMQ. None of these services can help you host and run a MySQL database.

QUESTION 176

A company wants its workload to perform consistently and correctly. Which benefit of AWS Cloud computing does this goal represent?

- A. Security
- B. Elasticity
- C. Pay-as-you-go pricing
- D. Reliability

Correct Answer: D

Section:

Explanation:

Reliability is the benefit of AWS Cloud computing that ensures the workload performs consistently and correctly. According to the AWS Cloud Practitioner Essentials course, reliability means "the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues."¹ Elasticity, security, and pay-as-you-go pricing are also benefits of AWS Cloud computing, but they do not directly relate to the goal of consistent and correct performance.

QUESTION 177

A company needs help managing multiple AWS linked accounts that are reported on a consolidated bill. Which AWS Support plan includes an AWS concierge whom the company can ask for assistance?

- A. AWS Developer Support
- B. AWS Enterprise Support
- C. AWS Business Support
- D. AWS Basic Support

Correct Answer: B

Section:



Explanation:

AWS Enterprise Support is the AWS Support plan that includes an AWS concierge whom the company can ask for assistance. According to the AWS Support Plans page, AWS Enterprise Support provides "a dedicated Technical Account Manager (TAM) who provides advocacy and guidance to help plan and build solutions using best practices, coordinate access to subject matter experts, and proactively keep your AWS environment operationally healthy."² AWS Business Support, AWS Developer Support, and AWS Basic Support do not include a TAM or a concierge service.

QUESTION 178

Which design principle is included in the operational excellence pillar of the AWS Well-Architected Framework?

- A. Create annotated documentation.
- B. Anticipate failure.
- C. Ensure performance efficiency.
- D. Optimize costs.

Correct Answer: A

Section:

Explanation:

Create annotated documentation is the design principle that is included in the operational excellence pillar of the AWS Well-Architected Framework. According to the AWS Well-Architected Framework whitepaper, creating annotated documentation means "documenting your workload so that the team understands the architecture, how to operate the workload, and how the workload delivers value to customers."³ Anticipate failure, ensure performance efficiency, and optimize costs are design principles that belong to other pillars of the AWS Well-Architected Framework, such as reliability, performance efficiency, and cost optimization.

QUESTION 179

A company is using Amazon RDS.

A company is launching a critical business application in an AWS Region.

How can the company increase resilience for this application?

- A. Deploy a copy of the application in another AWS account.
- B. Deploy the application by using multiple VPCs.
- C. Deploy the application by using multiple subnets.
- D. Deploy the application by using multiple Availability Zones.

Correct Answer: D

Section:

Explanation:

Deploying the application by using multiple Availability Zones is the best way to increase resilience for the application. According to the Amazon RDS User Guide, "Amazon RDS provides high availability and failover support for DB instances using Multi-AZ deployments. In a Multi-AZ deployment, Amazon RDS automatically provisions and maintains a synchronous standby replica in a different Availability Zone. The primary DB instance is synchronously replicated across Availability Zones to a standby replica to provide data redundancy, eliminate I/O freezes, and minimize latency spikes during system backups."⁴ Deploying a copy of the application in another AWS account, using multiple VPCs, or using multiple subnets do not provide the same level of resilience as using multiple Availability Zones.

QUESTION 180

Which AWS services or tools are designed to protect a workload from SQL injections, cross-site scripting, and DDoS attacks? (Select TWO.)

- A. VPC endpoint
- B. Virtual private gateway
- C. AWS Shield Standard
- D. AWS Config
- E. AWS WAF

Correct Answer: C



Section:**Explanation:**

AWS Shield Standard and AWS WAF are the AWS services or tools that are designed to protect a workload from SQL injections, cross-site scripting, and DDoS attacks. According to the AWS Shield Developer Guide, "AWS Shield is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS. AWS Shield provides always-on detection and automatic inline mitigations that minimize application downtime and latency, so there is no need to engage AWS Support to benefit from DDoS protection."5 According to the AWS WAF Developer Guide, "AWS WAF is a web application firewall that helps protect your web applications or APIs against common web exploits that may affect availability, compromise security, or consume excessive resources. AWS WAF gives you control over how traffic reaches your applications by enabling you to create security rules that block common attack patterns, such as SQL injection or cross-site scripting, and rules that filter out specific traffic patterns you define." VPC endpoint, virtual private gateway, and AWS Config are not designed to protect a workload from these types of attacks.

QUESTION 181

A company needs to securely store important credentials that an application uses to connect users to a database. Which AWS service can meet this requirement with the MINIMAL amount of operational overhead?

- A. AWS Key Management Service (AWS KMS)
- B. AWS Config
- C. AWS Secrets Manager
- D. Amazon GuardDuty

Correct Answer: C

Section:**Explanation:**

AWS Secrets Manager is a service that helps you protect secrets needed to access your applications, services, and IT resources. You can use AWS Secrets Manager to store, rotate, and retrieve database credentials, API keys, and other secrets throughout their lifecycle. AWS Secrets Manager eliminates the need to hardcode sensitive information in plain text, and reduces the risk of unauthorized access or leakage. AWS Secrets Manager also integrates with other AWS services, such as AWS Lambda, Amazon RDS, and AWS CloudFormation, to simplify the management of secrets across your environment5

QUESTION 182

A company is migrating its data center to AWS. The company needs an AWS Support plan that provides chat access to a cloud sup engineer 24 hours a day, 7 days a week. The company does not require access to infrastructure event management.

What is the MOST cost-effective AWS Support plan that meets these requirements?

- A. AWS Enterprise Support
- B. AWS Business Support
- C. AWS Developer Support
- D. AWS Basic Support

Correct Answer: B

Section:**Explanation:**

AWS Business Support is the most cost-effective AWS Support plan that provides chat access to a cloud support engineer 24/7. AWS Business Support also offers phone and email support, as well as a response time of less than one hour for urgent issues. AWS Business Support does not include access to infrastructure event management, which is a feature of AWS Enterprise Support. AWS Enterprise Support is more expensive and provides additional benefits, such as a technical account manager, a support concierge, and a response time of less than 15 minutes for critical issues. AWS Developer Support and AWS Basic Support do not provide chat access to a cloud support engineer. AWS Developer Support provides email support and a response time of less than 12 hours for general guidance issues. AWS Basic Support provides customer service and account support, as well as access to forums and documentation1

QUESTION 183

In the AWS shared responsibility model, which tasks are the responsibility of AWS? (Select TWO.)

- A. Patch an Amazon EC2 instance operating system.

- B. Configure a security group.
- C. Monitor the health of an Availability Zone.
- D. Protect the infrastructure that runs Amazon EC2 instances.
- E. Manage access to the data in an Amazon S3 bucket

Correct Answer: C, D

Section:

Explanation:

According to the AWS shared responsibility model, AWS is responsible for the security of the cloud, which includes the tasks of monitoring the health of an Availability Zone and protecting the infrastructure that runs Amazon EC2 instances. An Availability Zone is a physically isolated location within an AWS Region that has its own power, cooling, and network connectivity. AWS monitors the health and performance of each Availability Zone and notifies customers of any issues or disruptions.

AWS also protects the infrastructure that runs AWS services, such as Amazon EC2, by implementing physical, environmental, and operational security measures. AWS is not responsible for patching an Amazon EC2 instance operating system, configuring a security group, or managing access to the data in an Amazon S3 bucket. These are the customer's responsibilities for security in the cloud. The customer must ensure that the operating system and applications on their EC2 instances are up to date and secure. The customer must also configure the security group rules that control the inbound and outbound traffic for their EC2 instances. The customer must also manage the access permissions and encryption settings for their S3 buckets and objects2

QUESTION 184

A company's IT team is managing MySQL database server clusters. The IT team has to patch the database and take backup snapshots of the data in the clusters. The company wants to move this workload to AWS so that these tasks will be completed automatically.

What should the company do to meet these requirements?

- A. Deploy MySQL database server clusters on Amazon EC2 instances.
- B. Use Amazon RDS with a MySQL database.
- C. Use an AWS CloudFormation template to deploy MySQL database servers on Amazon EC2 instances.
- D. Migrate all the MySQL database data to Amazon S3.



Correct Answer: B

Section:

Explanation:

Amazon RDS is a service that makes it easy to set up, operate, and scale a relational database in the cloud. Amazon RDS supports MySQL as one of the database engines. By using Amazon RDS with a MySQL database, the company can offload the tasks of patching the database and taking backup snapshots to AWS. Amazon RDS automatically patches the database software and operating system of the database instances. Amazon RDS also automatically backs up the database and retains the backups for a user-defined retention period. The company can also restore the database to any point in time within the retention period. Deploying MySQL database server clusters on Amazon EC2 instances, using an AWS CloudFormation template to deploy MySQL database servers on Amazon EC2 instances, or migrating all the MySQL database data to Amazon S3 are not the best options to meet the requirements. These options would not automate the tasks of patching the database and taking backup snapshots, and would require more operational overhead from the company3

QUESTION 185

A company needs to store infrequently used data for data archives and long-term backups.

A company needs a history report about how its Amazon EC2 instances were modified last month.

Which AWS service can be used to meet this requirement?

- A. AWS Service Catalog
- B. AWS Config
- C. Amazon CloudWatch
- D. AWS Artifact

Correct Answer: B

Section:

Explanation:

AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. AWS Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations.

AWS Config can also track changes to your EC2 instances over time and provide a history report of the modifications. AWS Service Catalog, Amazon CloudWatch, and AWS Artifact are not the best services to meet this requirement. AWS Service Catalog is a service that allows you to create and manage catalogs of IT services that are approved for use on AWS. Amazon CloudWatch is a service that monitors your AWS resources and applications and provides metrics, alarms, dashboards, and logs. AWS Artifact is a service that provides on-demand access to AWS security and compliance reports and online agreements

QUESTION 186

A company wants to use the latest technologies and wants to minimize its capital investment. Instead of upgrading on-premises infrastructure, the company wants to move to the AWS Cloud. Which AWS Cloud benefit does this scenario describe?

- A. Increased speed to market
- B. The trade of infrastructure expenses for operating expenses
- C. Massive economies of scale
- D. The ability to go global in minutes

Correct Answer: B

Section:

Explanation:

The trade of infrastructure expenses for operating expenses is one of the benefits of the AWS Cloud.

By moving to the AWS Cloud, the company can avoid the upfront costs of purchasing and maintaining on-premises infrastructure, such as servers, storage, network, and software. Instead, the company can pay only for the AWS resources and services that they use, as they use them. This reduces the risk and complexity of planning and managing IT infrastructure, and allows the company to focus on innovation and growth. Increased speed to market, massive economies of scale, and the ability to go global in minutes are also benefits of the AWS Cloud, but they are not the best ones to describe this scenario. Increased speed to market means that the company can launch new products and services faster by using AWS services and tools. Massive economies of scale means that the company can benefit from the lower costs and higher performance that AWS achieves by operating at a large scale. The ability to go global in minutes means that the company can deploy their applications and data in multiple regions and availability zones around the world to reach their customers faster and improve performance and reliability.

QUESTION 187

Which AWS service provides threat detection by monitoring for malicious activities and unauthorized actions to protect AWS accounts, workloads, and data that is stored in Amazon S3?

- A. AWS Shield
- B. AWS Firewall Manager
- C. Amazon GuardDuty
- D. Amazon Inspector

Correct Answer: C

Section:

Explanation:

Amazon GuardDuty is a service that provides intelligent threat detection and continuous monitoring for your AWS accounts, workloads, and data. Amazon GuardDuty analyzes and processes data sources, such as VPC Flow Logs, AWS CloudTrail event logs, and DNS logs, to identify malicious activities and unauthorized actions, such as reconnaissance, instance compromise, account compromise, and data exfiltration. Amazon GuardDuty can also detect threats to your data stored in Amazon S3, such as API calls from unusual locations or disabling of preventative controls. Amazon GuardDuty generates findings that summarize the details of the detected threats and provides recommendations for remediation. AWS Shield, AWS Firewall Manager, and Amazon Inspector are not the best services to meet this requirement. AWS Shield is a service that provides protection against distributed denial of service (DDoS) attacks. AWS Firewall Manager is a service that allows you to centrally configure and manage firewall rules across your accounts and resources. Amazon Inspector is a service that assesses the security and compliance of your applications running on EC2 instances.

QUESTION 188

Amazon Elastic File System (Amazon EFS) and Amazon FSx offer which type of storage?

- A. File storage
- B. Object storage
- C. Block storage
- D. Instance store

Correct Answer: A

Section:

Explanation:

Amazon Elastic File System (Amazon EFS) and Amazon FSx are AWS services that offer file storage.

File storage is a type of storage that organizes data into files and folders that can be accessed and shared over a network. File storage is suitable for applications that require shared access to data, such as content management, media processing, and web serving. Amazon EFS provides a simple, scalable, and fully managed elastic file system that can be used with AWS Cloud services and onpremises resources. Amazon FSx provides fully managed third-party file systems, such as Windows File Server and Lustre, with native compatibility and high performance¹²

QUESTION 189

Which AWS service provides protection against DDoS attacks for applications that run in the AWS Cloud?

- A. Amazon VPC
- B. AWS Shield
- C. AWS Audit Manager
- D. AWS Config

Correct Answer: B

Section:

Explanation:

AWS Shield is an AWS service that provides protection against distributed denial of service (DDoS) attacks for applications that run in the AWS Cloud. DDoS attacks are attempts to make an online service unavailable by overwhelming it with traffic from multiple sources. AWS Shield provides two tiers of protection: AWS Shield Standard and AWS Shield Advanced. AWS Shield Standard is automatically enabled for all AWS customers at no additional charge. It provides protection against common and frequently occurring network and transport layer DDoS attacks. AWS Shield Advanced is an optional paid service that provides additional protection against larger and more sophisticated DDoS attacks. AWS Shield Advanced also provides access to 24/7 DDoS response team, cost protection, and enhanced detection and mitigation capabilities

QUESTION 190

A company wants to migrate its server-based applications to the AWS Cloud. The company wants to determine the total cost of ownership for its compute resources that will be hosted on the AWS Cloud. Which combination of AWS services or tools will meet these requirements?

- A. AWS Pricing Calculator
- B. Migration Evaluator
- C. AWS Support Center
- D. AWS Application Discovery Service
- E. AWS Database Migration Service (AWS DMS)

Correct Answer: A, D

Section:

Explanation:

AWS Pricing Calculator and AWS Application Discovery Service are the best combination of AWS services or tools to meet the requirements of determining the total cost of ownership for compute resources that will be hosted on the AWS Cloud. AWS Pricing Calculator is a tool that enables you to estimate the cost of using AWS services based on your usage scenarios and requirements. You can use AWS Pricing Calculator to compare the costs of running your applications on-premises or on AWS, and to optimize your AWS spending. AWS Application Discovery Service is a service that helps you plan your migration to the AWS Cloud by collecting and analyzing information about your onpremises servers, applications, and dependencies. You can use AWS Application Discovery Service to identify the inventory of your on-premises infrastructure, group servers by applications, and estimate the performance and resource utilization of your applications⁴⁵

QUESTION 191

A company is planning to migrate to the AWS Cloud and wants to become more responsive to customer inquiries and feedback. The company wants to focus on organizational transformation. A company wants to give its customers the ability to view specific data that is hosted in Amazon S3 buckets. The company wants to keep control over the full datasets that the company shares with the customers. Which S3 feature will meet these requirements?

- A. S3 Storage Lens
- B. S3 Cross-Region Replication (CRR)
- C. S3 Versioning
- D. S3 Access Points

Correct Answer:

Section:

Explanation:

S3 Access Points are a feature of Amazon S3 that allows you to easily manage access to specific data that is hosted in S3 buckets. S3 Access Points are unique hostnames that customers can use to access data in S3 buckets. You can create multiple access points for a single bucket, each with its own name and permissions. You can use S3 Access Points to provide different levels of access to different groups of customers, such as read-only or write-only access. You can also use S3 Access Points to enforce encryption or logging requirements for specific data. S3 Access Points help you keep control over the full datasets that you share with your customers, while simplifying the access management and improving the performance and scalability of your applications.

QUESTION 192

Which AWS services can limit manual errors by consistently provisioning AWS resources in multiple environments?

- A. AWS Config
- B. AWS CodeStar
- C. AWS CloudFormation
- D. AWS Cloud Development Kit (AWS CDK)
- E. AWS CodeBuild

Correct Answer: C, D

Section:

Explanation:

AWS CloudFormation and AWS Cloud Development Kit (AWS CDK) are AWS services that can limit manual errors by consistently provisioning AWS resources in multiple environments. AWS CloudFormation is a service that enables you to model and provision AWS resources using templates.

You can use AWS CloudFormation to define the AWS resources and their dependencies that you need for your applications, and to automate the creation and update of those resources across multiple environments, such as development, testing, and production. AWS CloudFormation helps you ensure that your AWS resources are configured consistently and correctly, and that you can easily replicate or modify them as needed. AWS Cloud Development Kit (AWS CDK) is a service that enables you to use familiar programming languages, such as Python, TypeScript, Java, and C#, to define and provision AWS resources. You can use AWS CDK to write code that synthesizes into AWS CloudFormation templates, and to leverage the existing libraries and tools of your preferred language. AWS CDK helps you reduce the complexity and errors of writing and maintaining AWS CloudFormation templates, and to apply the best practices and standards of software development to your AWS infrastructure.

QUESTION 193

A company is preparing to launch a redesigned website on AWS. Users from around the world will download digital handbooks from the website. Which AWS solution should the company use to provide these static files securely?

- A. Amazon Kinesis Data Streams
- B. Amazon CloudFront with Amazon S3
- C. Amazon EC2 instances with an Application Load Balancer
- D. Amazon Elastic File System (Amazon EFS)

Correct Answer: B

Section:



Explanation:

Amazon CloudFront with Amazon S3 is a solution that allows you to provide static files securely to users from around the world. Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment. Amazon S3 is an object storage service that offers industry-leading scalability, data availability, security, and performance. You can use Amazon S3 to store and retrieve any amount of data from anywhere. You can also configure Amazon S3 to work with Amazon CloudFront to distribute your content to edge locations near your users for faster delivery and lower latency. Amazon Kinesis Data Streams is a service that enables you to build custom applications that process or analyze streaming data for specialized needs. This option is not relevant for providing static files securely. Amazon EC2 instances with an Application Load Balancer is a solution that allows you to distribute incoming traffic across multiple targets, such as EC2 instances, in multiple Availability Zones. This option is suitable for dynamic web applications, but not necessary for static files. Amazon Elastic File System (Amazon EFS) is a service that provides a simple, scalable, fully managed elastic NFS file system for use with AWS Cloud services and onpremises resources. This option is not relevant for providing static files securely.

QUESTION 194

Which service is an AWS in-memory data store service?

- A. Amazon Aurora
- B. Amazon RDS
- C. Amazon DynamoDB
- D. Amazon ElastiCache

Correct Answer: D

Section:**Explanation:**

Amazon ElastiCache is a service that offers fully managed in-memory data store and cache services that deliver sub-millisecond response times to applications. You can use Amazon ElastiCache to improve the performance of your applications by retrieving data from fast, managed, in-memory data stores, instead of relying entirely on slower disk-based databases. Amazon Aurora is a relational database service that combines the performance and availability of high-end commercial databases with the simplicity and cost-effectiveness of open source databases. Amazon RDS is a service that makes it easy to set up, operate, and scale a relational database in the cloud. Amazon DynamoDB is a key-value and document database that delivers single-digit millisecond performance at any scale. None of these services are in-memory data store services.

QUESTION 195

Which AWS service or tool offers consolidated billing?

- A. AWS Artifact
- B. AWS Budgets
- C. AWS Organizations
- D. AWS Trusted Advisor A company wants to limit its employees' AWS access to a portfolio of predefined AWS resources.

Correct Answer: C

Section:**Explanation:**

AWS Organizations is a service that enables you to consolidate multiple AWS accounts into an organization that you create and centrally manage. With AWS Organizations, you can create a single payment method for all the AWS accounts in your organization through consolidated billing. Consolidated billing enables you to see a combined view of AWS charges incurred by all accounts in your organization, as well as get a detailed cost report for each individual AWS account associated with your organization. AWS Artifact is a service that provides on-demand access to AWS' security and compliance reports and select online agreements. AWS Budgets is a service that enables you to plan your service usage, service costs, and instance reservations. AWS Trusted Advisor is a service that provides real-time guidance to help you provision your resources following AWS best practices. None of these services or tools offer consolidated billing.

QUESTION 196

Which AWS solution should the company use to meet this requirement?

- A. AWS Config

- B. AWS software development kits (SDKs)
- C. AWS Service Catalog
- D. AWS AppSync

Correct Answer: C

Section:

Explanation:

AWS Service Catalog is a service that allows you to create and manage catalogs of IT services that are approved for use on AWS. You can use AWS Service Catalog to centrally manage commonly deployed IT services and help your organization achieve consistent governance and meet your compliance requirements, while enabling users to quickly deploy only the approved IT services they need¹. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. AWS software development kits (SDKs) are tools that enable you to easily integrate your applications with AWS services using your preferred programming language. AWS AppSync is a service that simplifies application development by letting you create a flexible API to securely access, manipulate, and combine data from one or more data sources. None of these services can help you limit your employees' AWS access to a portfolio of predefined AWS resources.

QUESTION 197

A company processes personally identifiable information (PII) and must keep data in the country where it was generated. The company wants to use Amazon EC2 instances for these workloads. Which AWS service will meet these requirements?

- A. AWS Outposts
- B. AWS Storage Gateway
- C. AWS DataSync
- D. AWS OpsWorks

Correct Answer: A

Section:

Explanation:

AWS Outposts is an AWS service that extends AWS infrastructure, services, APIs, and tools to virtually any datacenter, co-location space, or on-premises facility. AWS Outposts enables you to run Amazon EC2 instances and other AWS services locally, while maintaining a consistent and seamless connection to the AWS Cloud. AWS Outposts is ideal for workloads that require low latency, local data processing, or data residency. By using AWS Outposts, the company can process personally identifiable information (PII) and keep data in the country where it was generated, while leveraging the benefits of AWS

QUESTION 198

Which tasks are customer responsibilities, according to the AWS shared responsibility model? (Select TWO.)

- A. Configure the AWS provided security group firewall.
- B. Classify company assets in the AWS Cloud.
- C. Determine which Availability Zones to use for Amazon S3 buckets.
- D. Patch or upgrade Amazon DynamoDB.
- E. Select Amazon EC2 instances to run AWS Lambda on.
- F. AWS Config

Correct Answer: A, B

Section:

Explanation:

According to the AWS shared responsibility model, the customer is responsible for security in the cloud, which includes the tasks of configuring the AWS provided security group firewall and classifying company assets in the AWS Cloud. A security group is a virtual firewall that controls the inbound and outbound traffic for one or more EC2 instances. The customer must configure the security group rules to allow or deny traffic based on protocol, port, or source and destination IP address². Classifying company assets in the AWS Cloud means identifying the types, categories, and sensitivity levels of the data and resources that the customer stores and processes on AWS. The customer must also determine the applicable compliance requirements and regulations that apply to their assets, and implement the appropriate security controls and measures to protect them

QUESTION 199

A company is running an Amazon EC2 instance in a VPC.

An ecommerce company is using Amazon EC2 Auto Scaling groups to manage a fleet of web servers running on Amazon EC2.

This architecture follows which AWS Well-Architected Framework best practice?

- A. Secure the workload
- B. Decouple infrastructure components
- C. Design for failure
- D. Think parallel

Correct Answer: C

Section:

Explanation:

Design for failure is one of the best practices of the AWS Well-Architected Framework. It means that the architecture should be resilient and fault-tolerant, and able to handle failures without impacting the availability and performance of the applications. By using Amazon EC2 Auto Scaling groups, the ecommerce company can design for failure by automatically scaling the number of EC2 instances up or down based on demand or health status. Amazon EC2 Auto Scaling groups can also distribute the EC2 instances across multiple Availability Zones, which are isolated locations within an AWS Region that have independent power, cooling, and network connectivity. This way, the company can ensure that their web servers can handle traffic spikes, recover from failures, and provide a consistent user experience

QUESTION 200

Which tasks are the responsibility of the customer, according to the AWS shared responsibility model? (Select TWO.)

- A. Patch the Amazon RDS operating system.
- B. Upgrade the firmware of the network infrastructure.
- C. Manage data encryption.
- D. Maintain physical access control in an AWS Region.
- E. Grant least privilege access to IAM users.



Correct Answer: C, E

Section:

Explanation:

According to the AWS shared responsibility model, the customer is responsible for security in the cloud, which includes the tasks of managing data encryption and granting least privilege access to IAM users. Data encryption is the process of transforming data into an unreadable format that can only be accessed with a key or a password. The customer must decide whether to encrypt their data at rest (when it is stored on AWS) or in transit (when it is moving between AWS and the customer or between AWS services). The customer must also choose the encryption method, algorithm, and key management solution that best suit their needs. AWS provides various services and features that support data encryption, such as AWS Key Management Service (AWS KMS), AWS Certificate Manager (ACM), and AWS Encryption SDK. IAM users are entities that represent the people or applications that interact with AWS resources and services. The customer must grant the IAM users the minimum permissions that they need to perform their tasks, and avoid giving them unnecessary or excessive access. This is known as the principle of least privilege, and it helps reduce the risk of unauthorized or malicious actions. The customer can use IAM policies, roles, groups, and permissions boundaries to manage the access of IAM users.

QUESTION 201

A company wants to migrate its high-performance computing (HPC) application to Amazon EC2 instances. The application has multiple components. The application must have fault tolerance and must have the ability to fail over automatically.

Which AWS infrastructure solution will meet these requirements with the LEAST latency between components?

- A. Multiple AWS Regions
- B. Multiple edge locations
- C. Multiple Availability Zones
- D. Regional edge caches

Correct Answer: C

Section:**Explanation:**

Using EC2 instances in multiple Availability Zones is an AWS infrastructure solution that meets the requirements of migrating a high performance computing (HPC) application to AWS with fault tolerance and failover capabilities, and with the least latency between components. An Availability Zone is a physically isolated location within an AWS Region that has its own power, cooling, and network connectivity. EC2 instances within the same Region can communicate with each other using low-latency private IP addresses. By using EC2 instances in multiple Availability Zones, the company can achieve fault tolerance and failover for their HPC application, because they can distribute the workload and data across different locations that are independent of each other. If one Availability Zone becomes unavailable or impaired, the company can redirect the traffic and data to another Availability Zone without affecting the performance and availability of the application⁵

QUESTION 202

A company is running its application in the AWS Cloud. The company wants to periodically review its AWS account for cost optimization opportunities. Which AWS service or tool can the company use to meet these requirements?

- A. AWS Cost Explorer
- B. AWS Trusted Advisor
- C. AWS Pricing Calculator
- D. AWS Budgets

Correct Answer: A

Section:**Explanation:**

AWS Cost Explorer is an AWS service or tool that the company can use to periodically review its AWS account for cost optimization opportunities. AWS Cost Explorer is a tool that enables the company to visualize, understand, and manage their AWS costs and usage over time. The company can use AWS Cost Explorer to access interactive graphs and tables that show the breakdown of their costs and usage by service, region, account, tag, and more. The company can also use AWS Cost Explorer to forecast their future costs, identify trends and anomalies, and discover potential savings by using Reserved Instances or Savings Plans.

QUESTION 203

A developer who has no AWS Cloud experience wants to use AWS technology to build a web application. Which AWS service should the developer use to start building the application?

- A. Amazon SageMaker
- B. AWS Lambda
- C. Amazon Lightsail
- D. Amazon Elastic Container Service (Amazon ECS)

Correct Answer: C

Section:**Explanation:**

Amazon Lightsail is an easy-to-use cloud platform that offers everything you need to build an application or website, plus a cost-effective, monthly plan¹. It is designed for developers who have little or no prior cloud experience and want to launch and manage applications on AWS with minimal complexity². Amazon SageMaker is a service for building, training, and deploying machine learning models³. AWS Lambda is a service that lets you run code without provisioning or managing servers⁴.

Amazon Elastic Container Service (Amazon ECS) is a fully managed container orchestration service.

QUESTION 204

A company wants to monitor for misconfigured security groups that are allowing unrestricted access to specific ports. Which AWS service will meet this requirement?

- A. AWS Trusted Advisor
- B. Amazon CloudWatch
- C. Amazon GuardDuty

D. AWS Health Dashboard

Correct Answer: A

Section:

Explanation:

AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices, including security and performance. It can help you monitor for misconfigured security groups that are allowing unrestricted access to specific ports. Amazon CloudWatch is a service that monitors your AWS resources and the applications you run on AWS.

Amazon GuardDuty is a threat detection service that continuously monitors for malicious activity and unauthorized behavior. AWS Health Dashboard provides relevant and timely information to help you manage events in progress, and provides proactive notification to help you plan for scheduled activities.

QUESTION 205

An IT engineer needs to access AWS services from an on-premises application.

Which credentials or keys does the application need for authentication?

- A. AWS account user name and password
- B. IAM access key and secret
- C. Amazon EC2 key pairs
- D. AWS Key Management Service (AWS KMS) keys

Correct Answer: B

Section:

Explanation:

IAM access keys are long-term credentials that consist of an access key ID and a secret access key.

You use access keys to sign programmatic requests that you make to AWS. If you need to access AWS services from an on-premises application, you can use IAM access keys to authenticate your requests. AWS account user name and password are used to sign in to the AWS Management Console. Amazon EC2 key pairs are used to connect to your EC2 instances using SSH. AWS Key Management Service (AWS KMS) keys are used to encrypt and decrypt your data using the AWS Encryption SDK or the AWS CLI.

QUESTION 206

A company simulates workflows to review and validate that all processes are effective and that staff are familiar with the processes.

Which design principle of the AWS Well-Architected Framework is the company following with this practice?

- A. Perform operations as code.
- B. Refine operation procedures frequently.
- C. Make frequent, small, reversible changes.
- D. Structure the company to support business outcomes.

Correct Answer: B

Section:

Explanation:

Refining operation procedures frequently is one of the design principles of the operational excellence pillar of the AWS Well-Architected Framework. It means that you should review and validate your processes regularly to ensure they are effective and that staff are familiar with them. Performing operations as code, making frequent, small, reversible changes, and structuring the company to support business outcomes are design principles of other pillars of the AWS Well-Architected Framework.

QUESTION 207

A company wants to launch its web application in a second AWS Region. The company needs to determine which services must be regionally configured for this launch.

Which AWS services can be configured at the Region level? (Select TWO.)

- A. Amazon EC2

- B. Amazon Route 53
- C. Amazon CloudFront
- D. AWS WAF
- E. Amazon DynamoDB

Correct Answer: B, D

Section:

Explanation:

Amazon Route 53 and AWS WAF are AWS services that can be configured at the Region level.

Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service that lets you register domain names, route traffic to resources, and check the health of your resources. AWS WAF is a web application firewall that helps protect your web applications or APIs against common web exploits that may affect availability, compromise security, or consume excessive resources. Amazon EC2, Amazon CloudFront, and Amazon DynamoDB are AWS services that can be configured at the global level or the Availability Zone level .

QUESTION 208

A company needs to identify who accessed an AWS service and what action was performed for a given time period.

Which AWS service should the company use to meet this requirement?

- A. Amazon CloudWatch
- B. AWS CloudTrail
- C. AWS Security Hub
- D. Amazon Inspector

Correct Answer: B

Section:

Explanation:

AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account. With CloudTrail, you can log, continuously monitor, and retain account activity related to actions across your AWS infrastructure. You can use CloudTrail to identify who accessed an AWS service and what action was performed for a given time period. Amazon CloudWatch, AWS Security Hub, and Amazon Inspector are AWS services that provide different types of monitoring and security capabilities.

QUESTION 209

A company is running its application in the AWS Cloud and wants to protect against a DDoS attack.

The company's security team wants near real-time visibility into DDoS attacks.

Which AWS service or traffic filter will meet these requirements with the MOST features for DDoS protection?

- A. AWS Shield Advanced
- B. AWS Shield
- C. Amazon GuardDuty
- D. Network ACLs

Correct Answer: A

Section:

Explanation:

AWS Shield Advanced is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS. AWS Shield Advanced provides you with 24x7 access to the AWS DDoS Response Team (DRT) and protection against DDoS attacks of any size or duration. AWS Shield Advanced also provides near real-time visibility into attacks, advanced attack mitigation capabilities, and integration with AWS WAF and AWS Firewall Manager¹. AWS Shield is a standard service that provides always-on detection and automatic inline mitigations to minimize application downtime and latency, but it does not offer the same level of features and support as AWS Shield Advanced². Amazon GuardDuty is a threat detection service that continuously monitors for malicious activity and unauthorized behavior, but it does not provide DDoS protection³. Network ACLs are stateless filters that can be associated with a subnet to control the traffic to and from the subnet, but they are not designed to protect against DDoS attacks



QUESTION 210

A company is planning to migrate its application to the AWS Cloud.

Which AWS tool or set of resources should the company use to analyze and assess its readiness for migration?

- A. AWS Cloud Adoption Framework (AWS CAF)
- B. AWS Pricing Calculator
- C. AWS Well-Architected Framework
- D. AWS Budgets

Correct Answer: A

Section:

Explanation:

AWS Cloud Adoption Framework (AWS CAF) is a tool that helps organizations understand how cloud adoption transforms the way they work, and it provides structure to identify and address gaps in skills and processes. Applying the AWS CAF in your organization results in an actionable plan that helps you prepare the cloud environment, enable your staff with new skills, and migrate your applications. AWS Pricing Calculator is a tool that helps you estimate the cost of AWS services for your use cases and compare the cost of different AWS service configurations. AWS Well-Architected Framework is a tool that helps you review and improve your cloud-based architectures and better understand the business impact of your design decisions. AWS Budgets is a tool that helps you plan your service usage, service costs, and instance reservations, and track how close your plan is to your budgeted amount.

QUESTION 211

Which task must a user perform by using the AWS account root user credentials?

- A. Make changes to AWS production resources.
- B. Change AWS Support plans.
- C. Access AWS Cost and Usage Reports.
- D. Grant auditors' access to an AWS account for a compliance audit.



Correct Answer: B

Section:

Explanation:

Changing AWS Support plans is a task that must be performed by using the AWS account root user credentials. The root user is the email address that you used to sign up for AWS. It has complete access to all AWS services and resources in the account. You should use the root user only to perform a few account and service management tasks, such as changing AWS Support plans, closing the account, or changing the account name or email address. Making changes to AWS production resources, accessing AWS Cost and Usage Reports, and granting auditors access to an AWS account for a compliance audit are tasks that can be performed by using IAM users or roles, which are entities that you create in AWS to delegate permissions to access AWS services and resources.

QUESTION 212

A company is building an application on AWS. The application needs to comply with credit card regulatory requirements. The company needs proof that the AWS services and deployment are in compliance.

Which actions should the company take to meet these requirements? (Select TWO.)

- A. Use Amazon Inspector to submit the application for certification.
- B. Ensure that the application's underlying hardware components comply with requirements.
- C. Use AWS Artifact to access AWS documents about the compliance of the services.
- D. Get the compliance of the application certified by a company assessor.
- E. Use AWS Security Hub to certify the compliance of the application.

Correct Answer: C, D

Section:

Explanation:

Using AWS Artifact to access AWS documents about the compliance of the services, and getting the compliance of the application certified by a company assessor are actions that the company should take to meet the

requirements of complying with credit card regulatory requirements. AWS Artifact is a service that provides on-demand access to AWS security and compliance reports and select online agreements. Reports available in AWS Artifact include our Service Organization Control (SOC) reports, Payment Card Industry (PCI) reports, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls. AWS Artifact can help you demonstrate compliance with credit card regulatory requirements by providing you with proof that the AWS services and deployment are in compliance. Getting the compliance of the application certified by a company assessor is an action that the company should take to ensure that the application meets the specific requirements of the credit card industry. A company assessor is an independent third-party entity that is qualified to assess the compliance of the application with the relevant standards and regulations. Using Amazon Inspector to submit the application for certification is not an action that the company should take, because Amazon Inspector is a service that helps you improve the security and compliance of your applications deployed on AWS by automatically assessing them for vulnerabilities and deviations from best practices, but it does not provide certification for the applications. Ensuring that the application's underlying hardware components comply with requirements is not an action that the company should take, because the application is deployed on AWS, and AWS is responsible for the security and compliance of the underlying hardware components. This is part of the shared responsibility model, where AWS is responsible for security of the cloud, and customers are responsible for security in the cloud. Using AWS Security Hub to certify the compliance of the application is not an action that the company should take, because AWS Security Hub is a service that gives you a comprehensive view of your security posture across your AWS accounts and helps you check your environment against security industry standards and best practices, but it does not provide certification for the applications.

QUESTION 213

A company has set up a VPC on AWS. The company needs a dedicated connection between the VPC and the company's on-premises network. Which action should the company take to meet this requirement?

- A. Establish a VPN connection between the VPC and the company's on-premises network.
- B. Establish an AWS Direct Connect connection between the VPC and the company's on-premises network.
- C. Attach an internet gateway to the VPC. Use the AWS public endpoints for connectivity.
- D. Configure Amazon Connect to provide connectivity between the VPC and the company's on-premises network.

Correct Answer: B

Section:

Explanation:

Establishing an AWS Direct Connect connection between the VPC and the company's on-premises network is the action that the company should take to meet the requirement of having a dedicated connection between the VPC and the company's on-premises network. AWS Direct Connect is a service that lets you establish a dedicated network connection between your network and one of the AWS Direct Connect locations. Using AWS Direct Connect, you can create a private connection between AWS and your datacenter, office, or colocation environment, which can reduce your network costs, increase bandwidth throughput, and provide a more consistent network experience than internet-based connections. Establishing a VPN connection between the VPC and the company's on-premises network is an action that the company can take to create a secure and encrypted connection between the VPC and the company's on-premises network, but it is not a dedicated connection, as it uses the public internet as the transport mechanism. Attaching an internet gateway to the VPC and using the AWS public endpoints for connectivity is an action that the company can take to enable communication between the VPC and the internet, but it is not a dedicated connection, as it also uses the public internet as the transport mechanism. Configuring Amazon Connect to provide connectivity between the VPC and the company's on-premises network is not an action that the company can take, because Amazon Connect is a service that lets you set up and manage a contact center in the cloud, but it does not provide network connectivity between the VPC and the company's on-premises network.

QUESTION 214

Which AWS service or feature can a company use to apply security rules to specific Amazon EC2 instances?

- A. Network ACLs
- B. Security groups
- C. AWS Trusted Advisor
- D. AWS WAF

Correct Answer: B

Section:

Explanation:

Security groups are the AWS service or feature that can be used to apply security rules to specific Amazon EC2 instances. Security groups are virtual firewalls that control the inbound and outbound traffic for one or more instances. Customers can create security groups and add rules that reflect the role of the instance that is associated with the security group. For example, a web server instance needs security group rules that allow inbound HTTP and HTTPS access, while a database instance needs rules that allow access for the type of database¹². Security groups are stateful, meaning that the responses to allowed inbound traffic are also allowed, regardless of the outbound rules¹. Customers can assign multiple security groups to an instance, and the rules from each security group are effectively aggregated to create one set of rules¹. Network ACLs are another AWS service or feature that can be used to control the traffic for a subnet.

Network ACLs are stateless, meaning that they do not track the traffic that they allow. Therefore, customers must add rules for both inbound and outbound traffic³. Network ACLs are applied at the subnet level, not at the instance level.

AWS Trusted Advisor is an AWS service that provides best practice recommendations for security, performance, cost optimization, and fault tolerance. AWS Trusted Advisor does not apply security rules to specific Amazon EC2 instances, but it can help customers identify security gaps and improve their security posture⁴.

AWS WAF is an AWS service that helps protect web applications from common web exploits, such as SQL injection, cross-site scripting, and bot attacks. AWS WAF does not apply security rules to specific Amazon EC2 instances, but it can be integrated with other AWS services, such as Amazon CloudFront, Amazon API Gateway, and Application Load Balancer.

QUESTION 215

Which actions are best practices for an AWS account root user? (Select TWO.)

- A. Share root user credentials with team members.
- B. Create multiple root users for the account, separated by environment.
- C. Enable multi-factor authentication (MFA) on the root user.
- D. Create an IAM user with administrator privileges for daily administrative tasks, instead of using the root user.
Use programmatic access instead of the root user and password.

Correct Answer: C, D

Section:

Explanation:

The AWS account root user is the identity that has complete access to all AWS services and resources in the account. It is accessed by signing in with the email address and password that were used to create the account¹.

The root user should be protected and used only for a few account and service management tasks that require it¹. Therefore, the following actions are best practices for an AWS account root user:

Enable multi-factor authentication (MFA) on the root user. MFA is a security feature that requires users to provide two or more pieces of information to authenticate themselves, such as a password and a code from a device.

MFA adds an extra layer of protection for the root user credentials, which can access sensitive information and perform critical operations in the account².

Create an IAM user with administrator privileges for daily administrative tasks, instead of using the root user. IAM is a service that helps customers manage access to AWS resources for users and groups. Customers can create IAM users and assign them permissions to perform specific tasks on specific resources. Customers can also create IAM roles and policies to delegate access to other AWS services or external entities³. By creating an IAM user with administrator privileges, customers can avoid using the root user for everyday tasks and reduce the risk of accidental or malicious changes to the account¹.

QUESTION 216

A company wants an automated process to continuously scan its Amazon EC2 instances for software vulnerabilities.

Which AWS service will meet these requirements?

- A. Amazon GuardDuty
- B. Amazon Inspector
- C. Amazon Detective
- D. Amazon Cognito

Correct Answer: B

Section:

Explanation:

Amazon Inspector is the AWS service that can be used to perform vulnerability scans on AWS EC2 instances for software vulnerabilities automatically in a periodic fashion. Amazon Inspector automatically discovers EC2 instances and scans them for software vulnerabilities and unintended network exposure. Amazon Inspector uses AWS Systems Manager (SSM) and the SSM Agent to collect information about the software application inventory of the EC2 instances. This data is then scanned by Amazon Inspector for software vulnerabilities¹². Amazon Inspector also integrates with other AWS services, such as Amazon EventBridge and AWS Security Hub, to automate discovery, expedite vulnerability routing, and shorten mean time to remediate (MTTR) vulnerabilities².

QUESTION 217

A company wants to implement controls (guardrails) in a newly created AWS Control Tower landing zone.

Which AWS services or features can the company use to create and define these controls (guardrails)? (Select TWO.)

- A. AWS Config
- B. Service control policies (SCPs)
- C. Amazon GuardDuty
- D. AWS Identity and Access Management (IAM)
- E. Security groups

Correct Answer: A, B

Section:

Explanation:

AWS Config and service control policies (SCPs) are AWS services or features that the company can use to create and define controls (guardrails) in a newly created AWS Control Tower landing zone.

AWS Config is a service that enables users to assess, audit, and evaluate the configurations of their AWS resources. It can be used to create rules that check for compliance with the desired configurations and report any deviations. AWS Control Tower provides a set of predefined AWS Config rules that can be enabled as guardrails to enforce compliance across the landing zone¹.

Service control policies (SCPs) are a type of policy that can be used to manage permissions in AWS Organizations. They can be used to restrict the actions that the users and roles in the member accounts can perform on the AWS resources. AWS Control Tower provides a set of predefined SCPs that can be enabled as guardrails to prevent access to certain services or regions across the landing zone². Amazon GuardDuty is a service that provides intelligent threat detection and continuous monitoring for AWS accounts and resources. It is not a feature that can be used to create and define controls (guardrails) in a landing zone. AWS Identity and Access Management (IAM) is a service that allows users to manage access to AWS resources and services. It can be used to create users, groups, roles, and policies that control who can do what in AWS. It is not a feature that can be used to create and define controls (guardrails) in a landing zone. Security groups are virtual firewalls that control the inbound and outbound traffic for Amazon EC2 instances. They can be used to allow or deny access to an EC2 instance based on the port, protocol, and source or destination. They are not a feature that can be used to create and define controls (guardrails) in a landing zone.

QUESTION 218

A developer wants to use an Amazon S3 bucket to store application logs that contain sensitive data.

Which AWS service or feature should the developer use to restrict read and write access to the S3 bucket?

- A. Security groups
- B. Amazon CloudWatch
- C. AWS CloudTrail
- D. ACLs



Correct Answer: D

Section:

Explanation:

ACLs are an AWS service or feature that the developer can use to restrict read and write access to the S3 bucket. ACLs are access control lists that grant basic permissions to other AWS accounts or predefined groups. They can be used to grant read or write access to an S3 bucket or an object³.

Security groups are virtual firewalls that control the inbound and outbound traffic for Amazon EC2 instances. They are not a service or feature that can be used to restrict access to an S3 bucket.

Amazon CloudWatch is a service that provides monitoring and observability for AWS resources and applications. It can be used to collect and analyze metrics, logs, events, and alarms. It is not a service or feature that can be used to restrict access to an S3 bucket. AWS CloudTrail is a service that provides governance, compliance, and audit for AWS accounts and resources. It can be used to track and record the API calls and user activity in AWS. It is not a service or feature that can be used to restrict access to an S3 bucket.

QUESTION 219

Which AWS service or tool helps companies measure the environmental impact of their AWS usage?

- A. AWS customer carbon footprint tool
- B. AWS Compute Optimizer
- C. Sustainability pillar
- D. OS-Climate (Open Source Climate Data Commons)

Correct Answer: A

Section:

Explanation:

AWS customer carbon footprint tool is an AWS service or tool that helps companies measure the environmental impact of their AWS usage. It allows users to estimate the carbon emissions associated with their AWS resources and services, such as EC2, S3, and Lambda. It also provides recommendations and best practices to reduce the carbon footprint and improve the sustainability of their AWS workloads⁴. AWS Compute Optimizer is an AWS service that helps users optimize the performance and cost of their EC2 instances and Auto Scaling groups. It provides recommendations for optimal instance types, sizes, and configurations based on the workload characteristics and utilization metrics. It does not help users measure the environmental impact of their AWS usage.

Sustainability pillar is a concept that refers to the ability of a system to operate in an environmentally friendly and socially responsible manner. It is not an AWS service or tool that helps users measure the environmental impact of their AWS usage. OS-Climate (Open Source Climate Data Commons) is an initiative that aims to provide open source data, tools, and platforms to accelerate climate action and innovation. It is not an AWS service or tool that helps users measure the environmental impact of their AWS usage.

QUESTION 220

Which option is a perspective that includes foundational capabilities of the AWS Cloud Adoption Framework (AWS CAF)?

- A. Sustainability
- B. Operations
- C. Performance efficiency
- D. Reliability

Correct Answer: B

Section:

Explanation:

Operations is an option that is a perspective that includes foundational capabilities of the AWS Cloud Adoption Framework (AWS CAF). Operations is one of the six perspectives of the AWS CAF, along with business, people, governance, platform, and security. Operations focuses on the processes and procedures to support the ongoing management and maintenance of the cloud-based IT assets. It covers topics such as monitoring, backup and recovery, change management, incident management, and automation⁵. Sustainability is not a perspective of the AWS CAF, but a concept that refers to the ability of a system to operate in an environmentally friendly and socially responsible manner.

Performance efficiency is not a perspective of the AWS CAF, but a pillar of the AWS Well-Architected Framework. It focuses on using the right resources and services for the workload, monitoring performance, and continuously improving the efficiency of the solution. Reliability is not a perspective of the AWS CAF, but a pillar of the AWS Well-Architected Framework. It focuses on the ability of a system to recover from infrastructure or service disruptions, dynamically acquire computing resources to meet demand, and mitigate disruptions such as misconfigurations or transient network issues.

QUESTION 221

Which of the following is a benefit of decoupling an AWS Cloud architecture?

- A. Reduced latency
- B. Fewer components to manage
- C. Decreased costs
- D. Ability to upgrade components independently

Correct Answer: D

Section:

Explanation:

QUESTION 222

Which AWS service uses AWS Compute Optimizer to provide sizing recommendations based on workload metrics?

- A. Amazon EC2
- B. Amazon RDS
- C. Amazon Lightsail
- D. AWS Step Functions

Correct Answer: A

Section:

Explanation:

Amazon EC2 is a web service that provides secure, resizable compute capacity in the cloud. It allows you to launch virtual servers, called instances, with different configurations of CPU, memory, storage, and networking resources. AWS Compute Optimizer analyzes the specifications and utilization metrics of your Amazon EC2 instances and generates recommendations for optimal instance types that can reduce costs and improve performance. You can view the recommendations on the AWS Compute Optimizer console or the Amazon EC2 console¹².

Amazon RDS, Amazon Lightsail, and AWS Step Functions are not supported by AWS Compute Optimizer. Amazon RDS is a managed relational database service that lets you set up, operate, and scale a relational database in the cloud. Amazon Lightsail is an easy-to-use cloud platform that offers everything you need to build an application or website, plus a cost-effective, monthly plan. AWS Step Functions lets you coordinate multiple AWS services into serverless workflows so you can build and update apps quickly³.

QUESTION 223

Which capabilities are in the platform perspective of the AWS Cloud Adoption Framework (AWS CAF)? (Select TWO.)

- A. Performance and capacity management
- B. Data engineering
- C. Continuous integration and continuous delivery (CI/CD)
- D. Infrastructure protection
- E. Change and release management

Correct Answer: B, C

Section:

Explanation:

These are two of the seven capabilities that are in the platform perspective of the AWS Cloud Adoption Framework (AWS CAF). The platform perspective helps you build an enterprise-grade, scalable, hybrid cloud platform, modernize existing workloads, and implement new cloud-native solutions¹. The other five capabilities are:

Platform architecture -- Establish and maintain guidelines, principles, patterns, and guardrails for your cloud environment.

Platform engineering -- Build a compliant multi-account cloud environment with enhanced security features, and packaged, reusable cloud products.

Platform operations -- Manage and optimize your cloud environment with automation, monitoring, and incident response.

Application development -- Develop and deploy cloud-native applications using modern architectures and best practices.

Application migration -- Migrate your existing applications to the cloud using proven methodologies and tools.

Performance and capacity management, infrastructure protection, and change and release management are not capabilities of the platform perspective. They are part of the operations perspective, which helps you achieve operational excellence in the cloud². The operations perspective comprises six capabilities:

Performance and capacity management -- Monitor and optimize the performance and capacity of your cloud workloads.

Infrastructure protection -- Protect your cloud infrastructure from unauthorized access, malicious attacks, and data breaches.

Change and release management -- Manage changes and releases to your cloud workloads using automation and governance.

Configuration management -- Manage the configuration of your cloud resources and applications using automation and version control.

Incident management -- Respond to incidents affecting your cloud workloads using best practices and tools.

Service continuity management -- Ensure the availability and resilience of your cloud workloads using backup, recovery, and disaster recovery strategies.

QUESTION 224

How does the AWS Enterprise Support Concierge team help users?

- A. Supporting application development
- B. Providing architecture guidance
- C. Answering billing and account inquiries
- D. Answering questions regarding technical support cases

Correct Answer: C

Section:

Explanation:

The AWS Enterprise Support Concierge team is a group of billing and account experts who specialize in working with enterprise customers. They can help customers with questions about billing, account management, cost optimization, and other non-technical issues. They can also assist customers with navigating and optimizing their AWS environment, such as setting up consolidated billing, applying for service limit increases, or requesting refunds.

AWS Support Plan Comparison

AWS Enterprise Support Plan

Answer Explained: Which AWS Support plan provides access to AWS Concierge Support team for account assistance?

QUESTION 225

A company wants to make an upfront commitment for continued use of its production Amazon EC2 instances in exchange for a reduced overall cost.

Which pricing options meet these requirements with the LOWEST cost? (Select TWO.)

- A. Spot Instances
- B. On-Demand Instances
- C. Reserved Instances
- D. Savings Plans
- E. Dedicated Hosts

Correct Answer: C, D

Section:**Explanation:**

Reserved Instances (RIs) are a pricing model that allows you to reserve EC2 instances for a specified period of time (one or three years) and receive a significant discount compared to On-Demand pricing. RIs are suitable for workloads that have predictable usage patterns and require a long-term commitment. You can choose between three payment options: All Upfront, Partial Upfront, or No Upfront. The more you pay upfront, the greater the discount¹.

Savings Plans are a flexible pricing model that can help you reduce your EC2 costs by up to 72% compared to On-Demand pricing, in exchange for a commitment to a consistent amount of usage (measured in \$/hour) for a one or three year term. Savings Plans apply to usage across EC2, AWS Lambda, and AWS Fargate. You can choose between two types of Savings Plans: Compute Savings Plans and EC2 Instance Savings Plans. Compute Savings Plans offer the most flexibility and apply to any instance family, size, OS, tenancy, or region. EC2 Instance Savings Plans offer the highest discount and apply to a specific instance family within a region².

Spot Instances are a pricing model that allows you to bid for unused EC2 capacity in the AWS cloud and are available at a discount of up to 90% compared to On-Demand pricing. Spot Instances are suitable for fault-tolerant or stateless workloads that can run on heterogeneous hardware and have flexible start and end times. However, Spot Instances are not guaranteed and can be interrupted by AWS at any time if the demand for capacity increases or your bid price is lower than the current Spot price³.

On-Demand Instances are a pricing model that allows you to pay for compute capacity by the hour or second with no long-term commitments. On-Demand Instances are suitable for short-term, spiky, or unpredictable workloads that cannot be interrupted, or for applications that are being developed or tested on EC2 for the first time. However, On-Demand Instances are the most expensive option among the four pricing models⁴.

Dedicated Hosts are physical EC2 servers fully dedicated for your use. Dedicated Hosts can help you reduce costs by allowing you to use your existing server-bound software licenses, such as Windows Server, SQL Server, and SUSE Linux Enterprise Server. Dedicated Hosts can be purchased On-Demand or as part of Savings Plans. Dedicated Hosts are suitable for workloads that need to run on dedicated physical servers or have strict licensing requirements. However, Dedicated Hosts are not the lowest cost option among the four pricing models.

QUESTION 226

A company wants a time-series database service that makes it easier to store and analyze trillions of events each day.

Which AWS service will meet this requirement?

- A. Amazon Neptune
- B. Amazon Timestream
- C. Amazon Forecast
- D. Amazon DocumentDB (with MongoDB compatibility)

Correct Answer: B

Section:**Explanation:**

Amazon Timestream is a fast, scalable, and serverless time-series database service for IoT and other operational applications that makes it easy to store and analyze trillions of events per day up to 1,000 times faster and at as little as 1/10th the cost of relational databases¹. Amazon Timestream saves you time and cost in managing the lifecycle of time series data, and its purpose-built query engine lets you access and analyze recent and historical data together with a single query¹. Amazon Timestream has built-in time series analytics functions, helping you identify trends and patterns in near real time¹.

The other options are not suitable for storing and analyzing trillions of events per day. Amazon Neptune is a graph database service that supports highly connected data sets. Amazon Forecast is a machine learning service that generates accurate forecasts based on historical data. Amazon DocumentDB (with MongoDB compatibility) is a document database service that supports MongoDB workloads.

1: Time Series Database -- Amazon Timestream -- Amazon Web Services

QUESTION 227

A company plans to migrate to the AWS Cloud. The company wants to use the AWS Cloud Adoption Framework (AWS CAF) to define and track business outcomes as part of its cloud transformation journey. Which AWS CAF governance perspective capability will meet these requirements?

- A. Benefits management
- B. Risk management
- C. Application portfolio management
- D. Cloud financial management

Correct Answer: A

Section:

Explanation:

The correct answer is A) Benefits management.

Benefits management is the AWS CAF governance perspective capability that helps you define and track business outcomes as part of your cloud transformation journey. Benefits management helps you align your cloud initiatives with your business objectives, measure the value and impact of your cloud investments, and communicate the benefits of cloud adoption to your stakeholders¹².

Risk management is the AWS CAF governance perspective capability that helps you identify and mitigate the potential risks associated with cloud adoption, such as security, compliance, legal, and operational risks¹².

Application portfolio management is the AWS CAF governance perspective capability that helps you assess and optimize your existing application portfolio for cloud migration or modernization. Application portfolio management helps you categorize your applications based on their business value and technical fit, prioritize them for cloud adoption, and select the best migration or modernization strategy for each application¹².

Cloud financial management is the AWS CAF governance perspective capability that helps you manage and optimize the costs and value of your cloud resources. Cloud financial management helps you plan and budget for cloud adoption, track and allocate cloud costs, implement cost optimization strategies, and report on cloud financial performance¹².

1: AWS Cloud Adoption Framework: Governance Perspective 2: All you need to know about AWS Cloud Adoption Framework --- Governance Perspective

QUESTION 228

Which perspective in the AWS Cloud Adoption Framework (AWS CAF) includes a capability for well-designed data and analytics architecture?

- A. Security
- B. Governance
- C. Operations
- D. Platform

Correct Answer: D

Section:

Explanation:

The correct answer is D. Platform.

The Platform perspective in the AWS Cloud Adoption Framework (AWS CAF) includes a capability for well-designed data and analytics architecture. This capability helps you design, implement, and optimize your data and analytics solutions on AWS, using services such as Amazon S3, Amazon Redshift, Amazon EMR, Amazon Kinesis, Amazon Athena, and Amazon QuickSight. A well-designed data and analytics architecture enables you to collect, store, process, analyze, and visualize data from various sources, and derive insights that can drive your business decisions¹².

The Security perspective does not include a capability for data and analytics architecture, but it does include a capability for data protection, which helps you secure your data at rest and in transit using encryption, key management, access control, and auditing¹³.

The Governance perspective does not include a capability for data and analytics architecture, but it does include a capability for data governance, which helps you manage the quality, availability, usability, integrity, and security of your data assets¹⁴.

The Operations perspective does not include a capability for data and analytics architecture, but it does include a capability for data operations, which helps you monitor, troubleshoot, and optimize the performance and

availability of your data pipelines and workloads¹ .

1: Foundational capabilities - An Overview of the AWS Cloud Adoption Framework 2: [AWS Cloud Adoption Framework: Platform Perspective] 3: [AWS Cloud Adoption Framework: Security Perspective] 4: [AWS Cloud Adoption Framework: Governance Perspective] : [AWS Cloud Adoption Framework: Operations Perspective]

QUESTION 229

A developer has been hired by a large company and needs AWS credentials. Which are security best practices that should be followed? (Select TWO.)

- A. Grant the developer access to only the AWS resources needed to perform the job.
- B. Share the AWS account root user credentials with the developer.
- C. Add the developer to the administrator's group in AWS IAM.
- D. Configure a password policy that ensures the developer's password cannot be changed.
- E. Ensure the account password policy requires a minimum length.

Correct Answer: A, E

Section:

Explanation:

The security best practices that should be followed are A and E.

A) Grant the developer access to only the AWS resources needed to perform the job. This is an example of the principle of least privilege, which means giving the minimum permissions necessary to achieve a task. This reduces the risk of unauthorized access, data leakage, or accidental damage to AWS resources. You can use AWS Identity and Access Management (IAM) to create users, groups, roles, and policies that grant fine-grained access to AWS resources¹².

E) Ensure the account password policy requires a minimum length. This is a basic security measure that helps prevent brute-force attacks or guessing of passwords. A longer password is harder to crack than a shorter one. You can use IAM to configure a password policy that enforces a minimum password length, as well as other requirements such as complexity, expiration, and history³⁴.

B) Share the AWS account root user credentials with the developer. This is a bad practice that should be avoided. The root user has full access to all AWS resources and services, and can perform sensitive actions such as changing billing information, closing the account, or deleting all resources. Sharing the root user credentials exposes your account to potential compromise or misuse. You should never share your root user credentials with anyone, and use them only for account administration tasks⁵ .

C) Add the developer to the administrator's group in IAM. This is also a bad practice that should be avoided. The administrator's group has full access to all AWS resources and services, which is more than what a developer needs to perform their job. Adding the developer to the administrator's group violates the principle of least privilege and increases the risk of unauthorized access, data leakage, or accidental damage to AWS resources. You should create a custom group for the developer that grants only the necessary permissions for their role¹².

D) Configure a password policy that ensures the developer's password cannot be changed. This is another bad practice that should be avoided. Preventing the developer from changing their password reduces their ability to protect their credentials and comply with security policies. For example, if the developer's password is compromised, they cannot change it to prevent further unauthorized access. Or if the company requires periodic password rotation, they cannot update their password to meet this requirement. You should allow the developer to change their password as needed, and enforce a password policy that sets reasonable rules for password management³⁴.

QUESTION 230

A company is moving an on-premises data center to the AWS Cloud. The company must migrate 50 petabytes of file storage data to AWS with the least possible operational overhead. Which AWS service or resource should the company use to meet these requirements?

- A. AWS Snowmobile
- B. AWS Snowball Edge
- C. AWS Data Exchange
- D. AWS Database Migration Service (AWS DMS)

Correct Answer: A

Section:

Explanation:

The AWS service that the company should use to meet these requirements is A. AWS Snowmobile.

AWS Snowmobile is a service that allows you to migrate large amounts of data to AWS using a 45-foot long ruggedized shipping container that can store up to 100 petabytes of data. AWS Snowmobile is designed for situations

where you need to move massive amounts of data to the cloud in a fast, secure, and cost-effective way. AWS Snowmobile has the least possible operational overhead because it eliminates the need to buy, configure, or manage hundreds or thousands of storage devices¹².

AWS Snowball Edge is a service that allows you to migrate data to AWS using a physical device that can store up to 80 terabytes of data and has compute and storage capabilities to run applications on the device. AWS Snowball Edge is suitable for situations where you have limited or intermittent network connectivity, or where bandwidth costs are high. However, AWS Snowball Edge has more operational overhead than AWS Snowmobile because you need to request multiple devices and transfer your data onto them using the client³.

AWS Data Exchange is a service that allows you to find, subscribe to, and use third-party data in the cloud. AWS Data Exchange is not a data migration service, but rather a data marketplace that enables data providers and data consumers to exchange data sets securely and efficiently⁴.

AWS Database Migration Service (AWS DMS) is a service that helps migrate databases to AWS. AWS DMS does not migrate file storage data, but rather supports various database platforms and engines as sources and targets⁵.

1: AWS Snowmobile -- Move Exabytes of Data to the Cloud in Weeks 2: AWS Snowmobile - Amazon Web Services 3: Automated Software Vulnerability Management - Amazon Inspector - AWS 4: AWS Data Exchange - Find, subscribe to, and use third-party data in ... 5: AWS Database Migration Service -- Amazon Web Services

QUESTION 231

A company wants to define a central data protection policy that works across AWS services for compute, storage, and database resources.

Which AWS service will meet this requirement?

- A. AWS Batch
- B. AWS Elastic Disaster Recovery
- C. AWS Backup
- D. Amazon FSx

Correct Answer: C

Section:

Explanation:

The AWS service that will meet this requirement is C. AWS Backup.

AWS Backup is a service that allows you to define a central data protection policy that works across AWS services for compute, storage, and database resources. You can use AWS Backup to create backup plans that specify the frequency, retention, and lifecycle of your backups, and apply them to your AWS resources using tags or resource IDs. AWS Backup supports various AWS services, such as Amazon EC2, Amazon EBS, Amazon RDS, Amazon DynamoDB, Amazon EFS, Amazon FSx, and AWS Storage Gateway¹².

AWS Batch is a service that allows you to run batch computing workloads on AWS. AWS Batch does not provide a central data protection policy, but rather enables you to optimize the allocation and utilization of your compute resources³.

AWS Elastic Disaster Recovery is a service that allows you to prepare for and recover from disasters using AWS. AWS Elastic Disaster Recovery does not provide a central data protection policy, but rather helps you minimize downtime and data loss by replicating your applications and data to AWS⁴.

Amazon FSx is a service that provides fully managed file storage for Windows and Linux applications. Amazon FSx does not provide a central data protection policy, but rather offers features such as encryption, snapshots, backups, and replication to protect your file systems⁵.

1: AWS Backup -- Centralized backup across AWS services 3: AWS Batch -- Run Batch Computing Jobs on AWS 2: Data Protection Reference Architectures with AWS Backup 4: AWS Elastic Disaster Recovery -- Prepare for and recover from disasters using AWS 5: Amazon FSx -- Fully managed file storage for Windows and Linux applications

QUESTION 232

A company needs to engage third-party consultants to help maintain and support its AWS environment and the company's business needs.

Which AWS service or resource will meet these requirements?

- A. AWS Support
- B. AWS Organizations
- C. AWS Service Catalog
- D. AWS Partner Network (APN)

Correct Answer: D

Section:

Explanation:

The AWS service or resource that will meet these requirements is D. AWS Partner Network (APN).

AWS Partner Network (APN) is a global community of consulting and technology partners that offer a wide range of services and solutions for AWS customers. APN partners can help customers design, architect, build, migrate, and manage their workloads and applications on AWS. APN partners have access to various resources, training, tools, and support to enhance their AWS expertise and deliver value to customers¹².

AWS Support is a service that provides technical assistance and guidance for AWS customers. AWS Support offers different plans with varying levels of response time, access channels, and features. AWS Support does not directly engage third-party consultants, but rather connects customers with AWS experts and resources³.

AWS Organizations is a service that allows customers to manage multiple AWS accounts within a single organization. AWS Organizations enables customers to create groups of accounts, apply policies, automate account creation, and consolidate billing. AWS Organizations does not directly engage third-party consultants, but rather helps customers simplify and optimize their AWS account management⁴.

AWS Service Catalog is a service that allows customers to create and manage catalogs of IT services that are approved for use on AWS. AWS Service Catalog enables customers to control the configuration, deployment, and governance of their IT services. AWS Service Catalog does not directly engage third-party consultants, but rather helps customers standardize and streamline their IT service delivery⁵.

1: AWS Partner Network (APN) - Amazon Web Services (AWS) 2: Find an APN Partner - Amazon Web Services (AWS) 3: AWS Support -- Amazon Web Services 4: AWS Organizations -- Amazon Web Services 5: AWS Service Catalog -- Amazon Web Services

QUESTION 233

A company wants to use the AWS Cloud to deploy an application globally.

Which architecture deployment model should the company use to meet this requirement?

- A. Multi-Region
- B. Single-Region
- C. Multi-AZ
- D. Single-AZ

Correct Answer: A

Section:

Explanation:

The architecture deployment model that the company should use to meet this requirement is

A) Multi-Region.

A multi-region deployment model is a cloud computing architecture that distributes an application and its data across multiple geographic regions. A multi-region deployment model enables a company to achieve global reach, high availability, disaster recovery, and performance optimization. By deploying an application in multiple regions, a company can serve customers from the nearest region, reduce latency, increase redundancy, and comply with data sovereignty regulations¹².

A single-region deployment model is a cloud computing architecture that runs an application and its data within a single geographic region. A single-region deployment model is simpler and cheaper than a multi-region deployment model, but it has limited scalability, availability, and performance. A single-region deployment model may not be suitable for a company that wants to deploy an application globally, as it may face challenges such as network latency, regional outages, or regulatory compliance¹².

A multi-AZ (Availability Zone) deployment model is a cloud computing architecture that distributes an application and its data across multiple isolated locations within a single region. An Availability Zone is a physically separate location within an AWS Region that has independent power, cooling, and networking. A multi-AZ deployment model enhances the availability and durability of an application by providing redundancy and fault tolerance within a region³⁴.

A single-AZ deployment model is a cloud computing architecture that runs an application and its data within a single Availability Zone. A single-AZ deployment model is the simplest and most cost-effective option, but it has no redundancy or fault tolerance. A single-AZ deployment model may not be suitable for a company that wants to deploy an application globally, as it may face challenges such as network latency, regional outages, or regulatory compliance³⁴.

1: AWS Cloud Computing - W3Schools 2: Understand the Different Cloud Computing Deployment Models Unit - Trailhead 3: Regions and Availability Zones - Amazon Elastic Compute Cloud 4: AWS Reference Architecture Diagrams

QUESTION 234

Which option is a customer responsibility under the AWS shared responsibility model?

- A. Maintenance of underlying hardware of Amazon EC2 instances
- B. Application data security
- C. Physical security of data centers
- D. Maintenance of VPC components

Correct Answer: B

Section:

Explanation:

The option that is a customer responsibility under the AWS shared responsibility model is B. Application data security.

According to the AWS shared responsibility model, AWS is responsible for the security of the cloud, while the customer is responsible for the security in the cloud. This means that AWS manages the security of the underlying infrastructure, such as the hardware, software, networking, and facilities that run the AWS services, while the customer manages the security of their applications, data, and resources that they use on top of AWS¹².

Application data security is one of the customer responsibilities under the AWS shared responsibility model. This means that the customer is responsible for protecting their application data from unauthorized access, modification, deletion, or leakage. The customer can use various AWS services and features to help with application data security, such as encryption, key management, access control, logging, and auditing¹².

Maintenance of underlying hardware of Amazon EC2 instances is not a customer responsibility under the AWS shared responsibility model. This is part of the AWS responsibility to secure the cloud. AWS manages the physical servers that host the Amazon EC2 instances and ensures that they are updated, patched, and replaced as needed¹³.

Physical security of data centers is not a customer responsibility under the AWS shared responsibility model. This is also part of the AWS responsibility to secure the cloud. AWS operates and controls the facilities where the AWS services are hosted and ensures that they are protected from unauthorized access, environmental hazards, fire, and theft¹⁴.

Maintenance of VPC components is not a customer responsibility under the AWS shared responsibility model. This is a shared responsibility between AWS and the customer. AWS provides the VPC service and ensures that it is secure and reliable, while the customer configures and manages their own VPCs and related components, such as subnets, route tables, security groups, network ACLs, gateways, and endpoints¹⁵.

1: Shared Responsibility Model - Amazon Web Services (AWS) 2: AWS Cloud Computing - W3Schools 3: [Amazon EC2 FAQs - Amazon Web Services] 4: [AWS Security - Amazon Web Services] 5: [Amazon Virtual Private Cloud (VPC) - Amazon Web Services]

QUESTION 235

A company wants an AWS service to provide product recommendations based on its customer data.

Which AWS service will meet this requirement?

- A. Amazon Polly
- B. Amazon Personalize
- C. Amazon Comprehend
- D. Amazon Rekognition

Correct Answer: B

Section:

Explanation:

Amazon Personalize is an AWS service that helps developers quickly build and deploy a custom recommendation engine with real-time personalization and user segmentation¹. It uses machine learning (ML) to analyze customer data and provide relevant recommendations based on their preferences, behavior, and context. Amazon Personalize can be used for various use cases such as optimizing recommendations, targeting customers more accurately, maximizing the value of unstructured text, and promoting items using business rules¹.

The other options are not suitable for providing product recommendations based on customer data. Amazon Polly is a service that converts text into lifelike speech. Amazon Comprehend is a service that uses natural language processing (NLP) to extract insights from text and documents. Amazon Rekognition is a service that uses computer vision (CV) to analyze images and videos for faces, objects, scenes, and activities.

1: Cloud Products - Amazon Web Services (AWS)

2: Recommender System -- Amazon Personalize -- Amazon Web Services

3: Top 25 AWS Services List 2023 - GeeksforGeeks

4: AWS to Azure services comparison - Azure Architecture Center

5: The 25+ Best AWS Cost Optimization Tools (Updated 2023) - CloudZero

6: Amazon Polly -- Text-to-Speech Service - AWS

7: Natural Language Processing - Amazon Comprehend - AWS

8: Image and Video Analysis - Amazon Rekognition - AWS

QUESTION 236

A company wants to launch multiple workloads on AWS. Each workload is related to a different business unit. The company wants to separate and track costs for each business unit.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Use AWS Organizations and create one account for each business unit.
- B. Use a spreadsheet to control the owners and cost of each resource.



- C. Use an Amazon DynamoDB table to record costs for each business unit.
- D. Use the AWS Billing console to assign owners to resources and track costs.

Correct Answer: A

Section:

Explanation:

AWS Organizations is a service that helps you centrally manage and govern your AWS environment. You can use AWS Organizations to create multiple accounts for different business units, and group them into organizational units (OUs) that reflect your organizational structure¹. By doing so, you can separate and track costs for each business unit using the account ID as a cost allocation tag². You can also use AWS Organizations to apply policies and controls to your accounts, such as service control policies (SCPs) and tag policies¹.

The other options are not suitable for meeting the requirements with the least operational overhead. Using a spreadsheet or a DynamoDB table to control and record costs for each business unit would require manual data entry and maintenance, which is prone to errors and inconsistencies. Using the AWS Billing console to assign owners to resources and track costs would also require manual tagging of each resource, which is time-consuming and inefficient.

1: What Is AWS Organizations? - AWS Organizations

2: Cost Tagging and Reporting with AWS Organizations | AWS Cloud Financial Management

QUESTION 237

Which AWS services are supported by Savings Plans? (Select TWO.)

- A. Amazon EC2
- B. Amazon RDS
- C. Amazon SageMaker
- D. Amazon Redshift
- E. Amazon DynamoDB

Correct Answer: A, C

Section:

Explanation:

The AWS services that are supported by Savings Plans are:

Amazon EC2: Amazon EC2 is a service that provides scalable computing capacity in the AWS cloud. You can use Amazon EC2 to launch virtual servers, configure security and networking, and manage storage. Amazon EC2 is eligible for both Compute Savings Plans and EC2 Instance Savings Plans¹².

Amazon SageMaker: Amazon SageMaker is a service that helps you build and deploy machine learning models. You can use Amazon SageMaker to access Jupyter notebooks, use common machine learning algorithms, train and tune models, and deploy them to a hosted environment. Amazon SageMaker is eligible for SageMaker Savings Plans¹³.

The other options are not supported by Savings Plans. Amazon RDS, Amazon Redshift, and Amazon DynamoDB are database services that are eligible for Reserved Instances, but not Savings Plans⁴.

QUESTION 238

Which AWS service or feature is associated with a subnet in a VPC and is used to control inbound and outbound traffic?

- A. Amazon Inspector
- B. Network ACLs
- C. AWS Shield
- D. VPC Flow Logs

Correct Answer: B

Section:

Explanation:

Network ACLs (network access control lists) are an optional layer of security for your VPC that act as a firewall for controlling traffic in and out of one or more subnets. You can use network ACLs to allow or deny traffic based on protocol, port, or source and destination IP address. Network ACLs are stateless, meaning that they do not track the traffic that flows through them. Therefore, you must create rules for both inbound and outbound traffic.



QUESTION 239

Which task does AWS perform automatically?

- A. Encrypt data that is stored in Amazon DynamoDB.
- B. Patch Amazon EC2 instances.
- C. Encrypt user network traffic.
- D. Create TLS certificates for users' websites.

Correct Answer: B

Section:

Explanation:

AWS performs some tasks automatically to help you manage and secure your AWS resources. One of these tasks is patching Amazon EC2 instances. AWS provides two options for patching your EC2 instances: managed instances and patch baselines. Managed instances are a group of EC2 instances or on-premises servers that you can manage using AWS Systems Manager. Patch baselines define the patches that AWS Systems Manager applies to your instances. You can use AWS Systems Manager to automate the process of patching your instances based on a schedule or a maintenance window.

QUESTION 240

Which AWS service provides a single location to track the progress of application migrations?

- A. AWS Application Discovery Service
- B. AWS Application Migration Service
- C. AWS Service Catalog
- D. AWS Migration Hub

Correct Answer: D

Section:

Explanation:

AWS Migration Hub is a service that provides a single location to track the progress of application migrations across multiple AWS and partner solutions. It allows you to choose the AWS and partner migration tools that best fit your needs, while providing visibility into the status of migrations across your portfolio of applications¹. AWS Migration Hub supports migration status updates from the following tools: AWS Application Migration Service, AWS Database Migration Service, CloudEndure Migration, Server Migration Service, and Migrate for Compute Engine¹.

The other options are not correct for the following reasons:

AWS Application Discovery Service is a service that helps you plan your migration projects by automatically identifying servers, applications, and dependencies in your on-premises data centers². It does not track the progress of application migrations, but rather provides information to help you plan and scope your migrations.

AWS Application Migration Service is a service that helps you migrate and modernize applications from any source infrastructure to AWS with minimal downtime and disruption³. It is one of the migration tools that can send status updates to AWS Migration Hub, but it is not the service that provides a single location to track the progress of application migrations.

AWS Service Catalog is a service that allows you to create and manage catalogs of IT services that are approved for use on AWS⁴. It does not track the progress of application migrations, but rather helps you manage the provisioning and governance of your IT services.

1: What Is AWS Migration Hub? - AWS Migration Hub

2: What Is AWS Application Discovery Service? - AWS Application Discovery Service

3: App Migration Tool - AWS Application Migration Service - AWS

4: What Is AWS Service Catalog? - AWS Service Catalog

QUESTION 241

Which capabilities are in the platform perspective of the AWS Cloud Adoption Framework (AWS CAF)? (Select TWO.)

- A. Performance and capacity management
- B. Data engineering
- C. Continuous integration and continuous delivery (CI/CD)
- D. Infrastructure protection



E. Change and release management

Correct Answer: B, C

Section:

Explanation:

The platform perspective of the AWS Cloud Adoption Framework (AWS CAF) helps you build an enterprise-grade, scalable, hybrid cloud platform, modernize existing workloads, and implement new cloud-native solutions¹. It comprises seven capabilities, two of which are data engineering and CI/CD¹.

Data engineering: This capability helps you design and evolve a fit-for-purpose data and analytics architecture that can reduce complexity, cost, and technical debt while enabling you to gain actionable insights from exponentially growing data volumes¹. It involves selecting key technologies for each of your architectural layers, such as ingestion, storage, catalog, processing, and consumption. It also involves supporting real-time data processing and adopting a Lake House architecture to facilitate data movements between data lakes and purpose-built data stores¹.

CI/CD: This capability helps you automate the delivery of your cloud solutions using a set of practices and tools that enable faster and more reliable deployments¹. It involves establishing a pipeline that can build, test, and deploy your code across multiple environments. It also involves adopting a DevOps culture that fosters collaboration, feedback, and continuous improvement among your development and operations teams¹.

1: Platform perspective: infrastructure and applications - An Overview of the AWS Cloud Adoption Framework

QUESTION 242

A company hosts a large amount of data in AWS. The company wants to identify if any of the data should be considered sensitive.

Which AWS service will meet the requirement?

- A. Amazon Inspector
- B. Amazon Macie
- C. AWS Identity and Access Management (IAM)
- D. Amazon CloudWatch

Correct Answer: B

Section:

Explanation:

Amazon Macie is a fully managed service that uses machine learning and pattern matching to help you detect, classify, and better protect your sensitive data stored in the AWS Cloud¹. Macie can automatically discover and scan your Amazon S3 buckets for sensitive data such as personally identifiable information (PII), financial information, healthcare information, intellectual property, and credentials¹. Macie also provides you with a dashboard that shows the type, location, and volume of sensitive data in your AWS environment, as well as alerts and findings on potential security issues¹.

The other options are not suitable for identifying sensitive data in AWS. Amazon Inspector is a service that helps you find security vulnerabilities and deviations from best practices in your Amazon EC2 instances². AWS Identity and Access Management (IAM) is a service that helps you manage access to your AWS resources by creating users, groups, roles, and policies³. Amazon CloudWatch is a service that helps you monitor and troubleshoot your AWS resources and applications by collecting metrics, logs, events, and alarms⁴.

1: What Is Amazon Macie? - Amazon Macie

2: What Is Amazon Inspector? - Amazon Inspector

3: What Is IAM? - AWS Identity and Access Management

4: What Is Amazon CloudWatch? - Amazon CloudWatch

QUESTION 243

A company wants an AWS service to collect and process 10 TB of data locally and transfer the data to AWS. The company has intermittent connectivity.

Which AWS service will meet these requirements?

- A. AWS Database Migration Service (AWS DMS)
- B. AWS DataSync
- C. AWS Backup
- D. AWS Snowball Edge

Correct Answer: D

Section:

Explanation:



The correct answer is D. AWS Snowball Edge.

AWS Snowball Edge is a physical device that can be used to collect and process data locally and then transfer it to AWS. It is designed for situations where there is limited or intermittent network connectivity, or where bandwidth costs are high. AWS Snowball Edge can store up to 80 TB of data and has compute and storage capabilities to run applications on the device¹.

AWS Database Migration Service (AWS DMS) is a service that helps migrate databases to AWS. It does not collect or process data locally, nor does it work offline².

AWS DataSync is a service that helps transfer data between on-premises storage systems and AWS storage services. It does not collect or process data locally, and it requires a network connection to work³.

AWS Backup is a service that helps automate and manage backups across AWS services. It does not collect or process data locally, nor does it transfer data to AWS. It only backs up data that is already in AWS⁴.

1: AWS Snowball Edge 2: AWS Database Migration Service (AWS DMS) 3: AWS DataSync 4: AWS Backup

QUESTION 244

Which options are AWS Cloud Adoption Framework (AWS CAF) people perspective capabilities? (Select TWO.)

- A. Organizational alignment
- B. Portfolio management
- C. Organization design
- D. Risk management
- E. Modern application development

Correct Answer: A, C

Section:

Explanation:

The AWS Cloud Adoption Framework (AWS CAF) people perspective capabilities are the organizational skills and processes that enable effective cloud adoption. According to the AWS CAF people perspective whitepaper¹, there are seven capabilities in this perspective, two of which are:

Organizational alignment: This capability helps you align your organizational structure, roles, and responsibilities to support your cloud transformation goals and objectives. It involves assessing your current and desired state of alignment, identifying gaps and misalignments, and designing and implementing changes to optimize your cloud performance¹.

Organization design: This capability helps you design and evolve your organization to enable agility, innovation, and collaboration in the cloud. It involves defining your cloud operating model, identifying the skills and competencies needed for cloud roles, and creating career paths and development plans for your cloud workforce¹.

The other options are not capabilities in the AWS CAF people perspective. Portfolio management, risk management, and modern application development are capabilities in the AWS CAF business perspective, governance perspective, and platform perspective respectively².

1: AWS Cloud Adoption Framework: People Perspective - AWS Cloud Adoption Framework: People Perspective

2: AWS Cloud Adoption Framework - AWS Cloud Adoption Framework

QUESTION 245

A company has 5 TB of data stored in Amazon S3. The company plans to occasionally run queries on the data for analysis.

Which AWS service should the company use to run these queries in the MOST cost-effective manner?

- A. Amazon Redshift
- B. Amazon Athena
- C. Amazon Kinesis
- D. Amazon RDS

Correct Answer: B

Section:

Explanation:

Amazon Athena is a serverless, interactive analytics service that allows users to run SQL queries on data stored in Amazon S3. It is ideal for occasional queries on large datasets, as it does not require any server provisioning, configuration, or management. Users only pay for the queries they run, based on the amount of data scanned. Amazon Athena supports various data formats, such as CSV, JSON, Parquet, ORC, and Avro, and integrates with AWS Glue Data Catalog to create and manage schemas. Amazon Athena also supports querying data from other sources, such as on-premises or other cloud systems, using data connectors¹.

Amazon Redshift is a fully managed data warehouse service that allows users to run complex analytical queries on petabyte-scale data. However, it requires users to provision and maintain clusters of nodes, and pay for the

storage and compute capacity they use. Amazon Redshift is more suitable for frequent and consistent queries on structured or semi-structured data².

Amazon Kinesis is a platform for streaming data on AWS, enabling users to collect, process, and analyze real-time data. It is not designed for querying data stored in Amazon S3. Amazon Kinesis consists of four services: Kinesis Data Streams, Kinesis Data Firehose, Kinesis Data Analytics, and Kinesis Video Streams³.

Amazon RDS is a relational database service that provides six database engines: Amazon Aurora, PostgreSQL, MySQL, MariaDB, Oracle Database, and SQL Server. It simplifies database administration tasks such as backup, patching, scaling, and replication. However, it is not optimized for querying data stored in Amazon S3. Amazon RDS is more suitable for transactional workloads that require high performance and availability⁴.

Interactive SQL - Serverless Query Service - Amazon Athena - AWS

[Amazon Redshift -- Data Warehouse Solution - AWS]

[Amazon Kinesis - Streaming Data Platform - AWS]

[Amazon Relational Database Service (RDS) -- AWS]

QUESTION 246

A company needs to search for text in documents that are stored in Amazon S3.

Which AWS service will meet these requirements?

- A. Amazon Kendra
- B. Amazon Rekognition
- C. Amazon Polly
- D. Amazon Lex

Correct Answer: A

Section:

Explanation:

Amazon Kendra is a highly accurate and easy to use intelligent search service powered by machine learning. It enables users to easily find the content they are looking for, even when it is scattered across multiple locations and content repositories within their organization. Amazon Kendra supports natural language queries, and can search for text in documents stored in Amazon S3, as well as other sources such as SharePoint, OneDrive, Salesforce, ServiceNow, and more¹.

Amazon Rekognition is a computer vision service that makes it easy to add image and video analysis to applications. It can detect objects, faces, text, scenes, activities, and emotions in images and videos. However, it is not designed for searching for text in documents stored in Amazon S3².

Amazon Polly is a text-to-speech service that turns text into lifelike speech. It can create audio versions of books, articles, podcasts, and more. However, it is not designed for searching for text in documents stored in Amazon S3³.

Amazon Lex is a service for building conversational interfaces using voice and text. It can create chatbots that can interact with users using natural language. However, it is not designed for searching for text in documents stored in Amazon S3⁴.

Amazon Kendra -- Intelligent Search Service Powered by Machine Learning

Amazon Rekognition -- Video and Image - AWS

Amazon Polly -- Text-to-Speech Service - AWS

Amazon Lex -- Build Conversation Bots - AWS

QUESTION 247

Which AWS service or feature will search for and identify AWS resources that are shared externally?

- A. Amazon OpenSearch Service
- B. AWS Control Tower
- C. AWS IAM Access Analyzer
- D. AWS Fargate

Correct Answer: C

Section:

Explanation:

AWS IAM Access Analyzer is an AWS service that helps customers identify and review the resources in their AWS account that are shared with an external entity, such as another AWS account, a root user, an organization, or a public entity. AWS IAM Access Analyzer uses automated reasoning, a form of mathematical logic and inference, to analyze the resource-based policies in the account and generate comprehensive findings that show the access

level, the source of the access, the affected resource, and the condition under which the access applies. Customers can use AWS IAM Access Analyzer to audit their shared resources, validate their access policies, and monitor any changes to the resource sharing status. Reference: AWS IAM Access Analyzer, Identify and review resources shared with external entities, How AWS IAM Access Analyzer works

QUESTION 248

Which AWS service or feature allows a user to establish a dedicated network connection between a company's on-premises data center and the AWS Cloud?

- A. AWS Direct Connect
- B. VPC peering
- C. AWS VPN
- D. Amazon Route 53

Correct Answer: A

Section:

Explanation:

AWS Direct Connect is an AWS service that allows users to establish a dedicated network connection between their on-premises data center and the AWS Cloud. This connection bypasses the public internet and provides more predictable network performance, reduced bandwidth costs, and increased security. Users can choose from different port speeds and connection types, and use AWS Direct Connect to access AWS services in any AWS Region globally. Users can also use AWS Direct Connect in conjunction with AWS VPN to create a hybrid network architecture that combines the benefits of both private and public connectivity. Reference: AWS Direct Connect, [AWS Cloud Practitioner Essentials: Module 3 - Compute in the Cloud]

QUESTION 249

Which options are AWS Cloud Adoption Framework (AWS CAF) security perspective capabilities? (Select TWO.)

- A. Observability
- B. Incident and problem management
- C. Incident response
- D. Infrastructure protection
- E. Availability and continuity



Correct Answer: C, D

Section:

Explanation:

The AWS Cloud Adoption Framework (AWS CAF) security perspective helps users achieve the confidentiality, integrity, and availability of their data and cloud workloads. It comprises nine capabilities that are grouped into three categories: preventive, detective, and responsive. Incident response and infrastructure protection are two of the capabilities in the responsive and preventive categories, respectively. Incident response helps users prepare for and respond to security incidents in a timely and effective manner, using tools and processes that leverage AWS features and services. Infrastructure protection helps users implement security controls and mechanisms to protect their cloud resources, such as network, compute, storage, and database, from unauthorized access or malicious attacks. Reference: Security perspective: compliance and assurance, AWS Cloud Adoption Framework

QUESTION 250

A company wants to generate a list of IAM users. The company also wants to view the status of various credentials that are associated with the users, such as password, access keys, and multi-factor authentication (MFA) devices

Which AWS service or feature will meet these requirements?

- A. IAM credential report
- B. AWS IAM Identity Center (AWS Single Sign-On)
- C. AWS Identity and Access Management Access Analyzer
- D. AWS Cost and Usage Report

Correct Answer: A

Section:**Explanation:**

An IAM credential report is a feature of AWS Identity and Access Management (IAM) that allows you to view and download a report that lists all IAM users in your account and the status of their various credentials, such as passwords, access keys, and MFA devices. You can use this report to audit the security status of your IAM users and ensure that they follow the best practices for credential management. Reference: 1: AWS Documentation - IAM User Guide - Getting credential reports for your AWS account

QUESTION 251

Which of the following is an AWS Well-Architected Framework design principle for operational excellence in the AWS Cloud?

- A. Go global in minutes
- B. Make frequent, small, reversible changes
- C. Implement a strong foundation of identity and access management
- D. Stop spending money on hardware infrastructure for data center operations

Correct Answer: B

Section:**Explanation:**

Making frequent, small, reversible changes is one of the design principles for operational excellence in the AWS Cloud, as defined by the AWS Well-Architected Framework. This principle means that you should design your workloads to allow for rapid and safe changes, such as deploying updates, rolling back failures, and experimenting with new features. By making small and reversible changes, you can reduce the risk of errors, minimize the impact of failures, and increase the speed of recovery. Reference: 2: AWS Documentation - AWS Well-Architected Framework - Operational Excellence Pillar

QUESTION 252

Which type of AWS storage is ephemeral and is deleted when an Amazon EC2 instance is stopped or terminated?

- A. Amazon Elastic Block Store (Amazon EBS)
- B. Amazon EC2 instance store
- C. Amazon Elastic File System (Amazon EFS)
- D. Amazon S3

Correct Answer: B

Section:**Explanation:**

Amazon EC2 instance store provides temporary block-level storage for your EC2 instance. This storage is located on disks that are physically attached to the host computer. Instance store is ideal for temporary storage of information that changes frequently, such as buffers, caches, scratch data, and other temporary content. It can also be used to store temporary data that you replicate across a fleet of instances, such as a load-balanced pool of web servers. An instance store consists of one or more instance store volumes exposed as block devices. The size of an instance store as well as the number of devices available varies by instance type and instance size. The virtual devices for instance store volumes are ephemeral [0-23]. Instance types that support one instance store volume have ephemeral0. Instance types that support two or more instance store volumes have ephemeral1, ephemeral2, and so on. Instance store pricing Instance store volumes are included as part of the instance's usage cost. The data on an instance store volume persists even if the instance is rebooted. However, the data does not persist if the instance is stopped, hibernated, or terminated. When the instance is stopped, hibernated, or terminated, every block of the instance store volume is cryptographically erased. Therefore, do not rely on instance store volumes for valuable, long-term data. If you need to retain the data stored on an instance store volume beyond the lifetime of the instance, you need to manually copy that data to more persistent storage, such as an Amazon EBS volume, an Amazon S3 bucket, or an Amazon EFS file system. There are some events that can result in your data not persisting throughout the lifetime of the instance. The following table indicates whether data on instance store volumes is persisted during specific events, for both virtualized and bare metal instances. Reference: Amazon EC2 instance store - Amazon Elastic Compute Cloud

QUESTION 253

Which AWS Cloud deployment model uses AWS Outposts as part of the application deployment infrastructure?

- A. On-premises
- B. Serverless
- C. Cloud-native

D. Hybrid

Correct Answer: D

Section:

Explanation:

AWS Outposts is a fully managed service that extends AWS infrastructure, services, APIs, and tools to customer premises. By providing local access to AWS managed infrastructure, AWS Outposts enables customers to build and run applications on premises using the same programming interfaces as in AWS Regions, while using local compute and storage resources for lower latency and local data processing needs. An Outpost is a pool of AWS compute and storage capacity deployed at a customer site. AWS operates, monitors, and manages this capacity as part of an AWS Region. You can create subnets on your Outpost and specify them when you create AWS resources such as EC2 instances, EBS volumes, ECS clusters, and RDS instances. Instances in Outpost subnets communicate with other instances in the AWS Region using private IP addresses, all within the same VPC. Outposts solutions allow you to extend and run native AWS services on premises, and is available in a variety of form factors, from 1U and 2U Outposts servers to 42U Outposts racks, and multiple rack deployments. With AWS Outposts, you can run some AWS services locally and connect to a broad range of services available in the local AWS Region². AWS Outposts is a hybrid cloud deployment model that uses AWS Outposts as part of the application deployment infrastructure. Hybrid cloud is a cloud computing environment that uses a mix of on-premises, private cloud, and public cloud services with orchestration between the platforms. Hybrid cloud provides businesses with greater flexibility, more deployment options, and optimized costs. By using AWS Outposts, customers can benefit from the fully managed infrastructure, services, APIs, and tools of AWS on premises, while still having access to the full range of AWS services available in the Region for a truly consistent hybrid experience³. Reference: On-Premises Private Cloud - AWS Outposts Family - AWS, What is AWS Outposts? - AWS Outposts

QUESTION 254

A company wants to automatically add and remove Amazon EC2 instances. The company wants the EC2 instances to adjust to varying workloads dynamically. Which service or feature will meet these requirements?

- A. Amazon DynamoDB
- B. Amazon EC2 Spot Instances
- C. AWS Snow Family
- D. Amazon EC2 Auto Scaling

Correct Answer: D

Section:

Explanation:

Amazon EC2 Auto Scaling is a service that helps you maintain application availability and allows you to automatically add or remove EC2 instances according to definable conditions. You can create collections of EC2 instances, called Auto Scaling groups, and specify the minimum and maximum number of instances in each group. You can also define scaling policies that adjust the number of instances based on the demand on your application. Amazon EC2 Auto Scaling helps you improve the performance, reliability, and cost-efficiency of your EC2 workloads¹²³. Reference: ¹:VDI Desktops - Amazon WorkSpaces Family - AWS, ²:What is Amazon EC2 Auto Scaling? - Amazon EC2 Auto Scaling, ³:Discover Amazon EC2 Auto Scaling Unit | Salesforce Trailhead

QUESTION 255

Which AWS service could an administrator use to provide desktop environments for several employees?

- A. AWS Organizations
- B. AWS Fargate
- C. AWS WAF
- D. AWS Workspaces

Correct Answer: D

Section:

Explanation:

AWS Workspaces is a service that provides fully managed, secure, and reliable virtual desktops for your employees. You can access your personal Windows environment on various devices, such as Android, iOS, Fire, Mac, PC, Chromebook, and Linux. You can choose from different bundles of CPU, memory, storage, and software options to suit your needs. You can also integrate AWS Workspaces with your existing Active Directory, VPN, and security policies. AWS Workspaces helps you reduce the cost and complexity of managing your desktop infrastructure, while enhancing the productivity and security of your remote workers⁴⁵⁶. Reference: ⁴:Amazon WorkSpaces Client Download, ⁵:VDI Desktops - Amazon WorkSpaces Family - AWS, ⁶:Amazon WorkSpaces

QUESTION 256



Which AWS service is a cloud security posture management (CSPM) service that aggregates alerts from various AWS services and partner products in a standardized format?

- A. AWS Security Hub
- B. AWS Trusted Advisor
- C. Amazon EventBridge
- D. Amazon GuardDuty

Correct Answer: A

Section:

Explanation:

AWS Security Hub is a cloud security posture management (CSPM) service that performs security best practice checks, aggregates alerts, and enables automated remediation. Security Hub collects findings from the security services enabled across your AWS accounts, such as intrusion detection findings from Amazon GuardDuty, vulnerability scans from Amazon Inspector, and sensitive data identification findings from Amazon Macie. Security Hub also collects findings from partner security products using a standardized AWS Security Finding Format, eliminating the need for time-consuming data parsing and normalization efforts. Customers can designate an administrator account that can access all findings across their accounts. Reference: AWS Security Hub Overview, AWS Security Hub FAQs

QUESTION 257

Which AWS services make use of global edge locations? (Select TWO.)

- A. AWS Fargate
- B. Amazon CloudFront
- C. AWS Global Accelerator
- D. AWS Wavelength
- E. Amazon VPC

Correct Answer: B, C

Section:

Explanation:

Amazon CloudFront and AWS Global Accelerator are two AWS services that make use of global edge locations. Edge locations are AWS sites that are deployed worldwide in major cities and places with a high population. Edge locations are used to cache data and reduce latency for end-user access¹.

Amazon CloudFront is a content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency and high transfer speeds. Amazon CloudFront uses a global network of over 200 edge locations and 13 regional edge caches to cache your content closer to your viewers, improving performance and reducing costs²³.

AWS Global Accelerator is a networking service that improves the availability and performance of your applications with local or global users. AWS Global Accelerator uses the AWS global network to route user traffic to the optimal endpoint based on health, performance, and policies. AWS Global Accelerator uses over 100 edge locations to bring your application endpoints closer to your users, reducing network hops and improving user experience⁴⁵. Reference: ¹:AWS for the Edge - Amazon Web Services (AWS), ²:Content Delivery Network (CDN) - Amazon CloudFront - AWS, ³:Amazon CloudFront Documentation, ⁴:AWS Global Accelerator - Amazon Web Services, ⁵:AWS Global Accelerator Documentation

QUESTION 258

An ecommerce company wants to use Amazon EC2 Auto Scaling to add and remove EC2 instances based on CPU utilization.

Which AWS service or feature can initiate an Amazon EC2 Auto Scaling action to achieve this goal?

- A. Amazon Simple Queue Service (Amazon SQS)
- B. Amazon Simple Notification Service (Amazon SNS)
- C. AWS Systems Manager
- D. Amazon CloudWatch alarm

Correct Answer: D

Section:

Explanation:



Amazon CloudWatch alarm is an AWS service or feature that can initiate an Amazon EC2 Auto Scaling action based on CPU utilization. Amazon CloudWatch is a monitoring and observability service that collects and tracks metrics, logs, events, and alarms for your AWS resources and applications. Amazon CloudWatch alarms are actions that you can configure to send notifications or automatically make changes to the resources you are monitoring based on rules that you define⁶⁷.

Amazon EC2 Auto Scaling is a service that helps you maintain application availability and allows you to automatically add or remove EC2 instances according to definable conditions. You can create dynamic scaling policies that track a specific CloudWatch metric, such as CPU utilization, and define what action to take when the associated CloudWatch alarm is in ALARM. When the policy is in effect, Amazon EC2 Auto Scaling adjusts the group's desired capacity up or down when the threshold of an alarm is breached⁸⁹. Reference: ⁶Cloud Monitoring - Amazon CloudWatch - AWS, ⁷Amazon CloudWatch Documentation, ⁸Dynamic scaling for Amazon EC2 Auto Scaling, ⁹Amazon EC2 Auto Scaling Documentation

QUESTION 259

Which AWS service is always provided at no charge?

- A. Amazon S3
- B. AWS Identity and Access Management (IAM)
- C. Elastic Load Balancers
- D. AWS WAF

Correct Answer: B

Section:

Explanation:

AWS Identity and Access Management (IAM) is a web service that helps you securely control access to AWS resources. You can use IAM to create and manage AWS users and groups, and use permissions to allow and deny their access to AWS resources. IAM is always provided at no charge¹². Reference: ¹AWS Identity and Access Management (IAM) - Amazon Web Services (AWS), ²Which aws service is always provided at no charge? - Brainly.in

QUESTION 260

A company wants durable storage for static content and infinitely scalable data storage infrastructure at the lowest cost. Which AWS service should the company choose?

- A. Amazon Elastic Block Store (Amazon EBS)
- B. Amazon S3
- C. AWS Storage Gateway
- D. Amazon Elastic File System (Amazon EFS)

Correct Answer: B

Section:

Explanation:

Amazon S3 is a service that provides durable storage for static content and infinitely scalable data storage infrastructure at the lowest cost. Amazon S3 is an object storage service that allows you to store and retrieve any amount of data from anywhere on the internet. Amazon S3 offers industry-leading scalability, availability, and performance, as well as 99.999999999% (11 9s) of durability and multi-AZ resilience. Amazon S3 also provides various storage classes that offer different levels of performance and cost optimization, such as S3 Standard, S3 Intelligent-Tiering, S3 Standard-Infrequent Access (S3 Standard-IA), S3 One Zone-Infrequent Access (S3 One Zone-IA), and S3 Glacier⁴⁵⁶. Amazon S3 is ideal for storing static content, such as images, videos, documents, and web pages, as well as building data lakes, backup and archive solutions, big data analytics, and machine learning applications⁴⁵⁶. Reference: ⁴Cloud Storage on AWS, ⁵Object Storage - Amazon Simple Storage Service (S3) - AWS, ⁶Amazon S3 Documentation

QUESTION 261

A company wants to run a NoSQL database on Amazon EC2 instances. Which task is the responsibility of AWS in this scenario'?

- A. Update the guest operating system of the EC2 instances
- B. Maintain high availability at the database layer
- C. Patch the physical infrastructure that hosts the EC2 instances
- D. Configure the security group firewall

Correct Answer: C

Section:

Explanation:

When you run a NoSQL database on Amazon EC2 instances, you are responsible for managing the database layer and the guest operating system of the instances. This means that you need to perform tasks such as updating the operating system, maintaining high availability, and configuring the security group firewall. AWS is responsible for managing the physical infrastructure that hosts the EC2 instances. This means that AWS ensures that the hardware and firmware of the servers, routers, switches, and other devices are updated and secure. AWS also handles the power, cooling, networking, and security of the data centers. Reference: CLF-C02: Which task is responsibility of AWS to run NoSQL database on ..., Best Practices for Hosting NoSQL Databases on Amazon EC2

QUESTION 262

Which service enables customers to audit API calls in their AWS accounts'?

- A. AWS CloudTrail
- B. AWS Trusted Advisor
- C. Amazon Inspector
- D. AWS X-Ray

Correct Answer: A

Section:

Explanation:

AWS CloudTrail is a service that provides a record of actions taken by a user, role, or an AWS service in your AWS account. CloudTrail captures all API calls for AWS services as events, including calls from the AWS Management Console, AWS SDKs, command line tools, and higher-level AWS services. You can use CloudTrail to monitor, audit, and troubleshoot your AWS account activity. AWS Trusted Advisor is a service that provides best practices recommendations for cost optimization, performance, security, and fault tolerance in your AWS account. Amazon Inspector is a service that helps you improve the security and compliance of your applications deployed on AWS by automatically assessing them for vulnerabilities and deviations from best practices. AWS X-Ray is a service that helps you analyze and debug your applications by collecting data about the requests that your application serves, and providing tools to view, filter, and gain insights into that data. Reference: Logging AWS Audit Manager API calls with CloudTrail, Logging AWS Account Management API calls using AWS CloudTrail, Review API calls in your AWS account using CloudTrail, Monitor the usage of AWS API calls using Amazon CloudWatch, Which service enables customers to audit API calls in their AWS ...

QUESTION 263

A company needs a bridge between technology and business to help evolve to a culture of continuous growth and learning. Which perspective in the AWS Cloud Adoption Framework (AWS CAF) serves as this bridge?

- A. People
- B. Governance
- C. Operations
- D. Security

Correct Answer: A

Section:

Explanation:

The People perspective in the AWS Cloud Adoption Framework (AWS CAF) serves as a bridge between technology and business, accelerating the cloud journey to help organizations more rapidly evolve to a culture of continuous growth, learning, and where change becomes business-as-normal, with focus on culture, organizational structure, leadership, and workforce. Reference: People Perspective - AWS Cloud Adoption Framework

QUESTION 264

Which mechanism allows developers to access AWS services from application code?

- A. AWS Software Development Kit
- B. AWS Management Console
- C. AWS CodePipeline
- D. AWS Config

Correct Answer: A

Section:

Explanation:

AWS Software Development Kit (SDK) is a set of platform-specific building tools for developers. It allows developers to access AWS services from application code using familiar programming languages. It provides pre-built components and libraries that can be incorporated into applications, as well as tools to debug, monitor, and optimize performance. Reference: What is SDK? - SDK Explained - AWS

QUESTION 265

Which AWS service gives users the ability to discover and protect sensitive data that is stored in Amazon S3 buckets?

- A. Amazon Macie
- B. Amazon Detective
- C. Amazon GuardDuty
- D. AWS IAM Access Analyzer

Correct Answer: A

Section:

Explanation:

Amazon Macie is a data security and privacy service offered by AWS that uses machine learning and pattern matching to discover the sensitive data stored within Amazon S3. You can define your own custom type of sensitive data category that might be unique to your business or use case. Macie also provides you with dashboards and alerts that give you visibility into how your data is being accessed or moved. Macie helps you protect your data by enabling you to apply data protection techniques such as encryption, deletion, access control, and auditing. Reference: Strengthen the security of sensitive data stored in Amazon S3 by using additional AWS services, Security best practices for Amazon S3, Sensitive Data Protection on AWS, Sensitive Data Protection on Amazon Web Services

QUESTION 266

Which AWS service or resource provides answers to the most frequently asked security-related questions that AWS receives from its users'?

- A. AWS Artifact
- B. Amazon Connect
- C. AWS Chatbot
- D. AWS Knowledge Center

Correct Answer: A

Section:

Explanation:

AWS Artifact is your go-to, central resource for compliance-related information that matters to you. It provides on-demand access to AWS's security and compliance reports and select online agreements. Reports available in AWS Artifact include our Service Organization Control (SOC) reports, Payment Card Industry (PCI) attestation of compliance, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls. Agreements available in AWS Artifact include the Business Associate Addendum (BAA) and the Nondisclosure Agreement (NDA). AWS Artifact helps you answer the most frequently asked security and compliance questions that AWS receives from its users. Reference: Compliance FAQ, Compliance Solutions Guide

QUESTION 267

Which of the following services can be used to block network traffic to an instance? (Select TWO.)

- A. Security groups
- B. Amazon Virtual Private Cloud (Amazon VPC) flow logs
- C. Network ACLs
- D. Amazon CloudWatch
- E. AWS CloudTrail

Correct Answer: A, C

Section:

Explanation:

Security groups and network ACLs are two AWS services that can be used to block network traffic to an instance. Security groups are virtual firewalls that control the inbound and outbound traffic for your instances at the instance level. You can specify which protocols, ports, and source or destination IP addresses are allowed or denied for each instance. Security groups are stateful, which means that they automatically allow return traffic for any allowed inbound or outbound traffic¹²³. Network ACLs are virtual firewalls that control the inbound and outbound traffic for your subnets at the subnet level. You can create rules to allow or deny traffic based on protocols, ports, and source or destination IP addresses. Network ACLs are stateless, which means that you have to explicitly allow return traffic for any allowed inbound or outbound traffic⁴⁵⁶. Reference: ¹Security groups for your VPC - Amazon Virtual Private Cloud, ²Security Groups for Your VPC - Amazon Elastic Compute Cloud, ³AWS Security Groups: Everything You Need to Know, ⁴Network ACLs - Amazon Virtual Private Cloud, ⁵Control traffic to subnets using network ACLs - Amazon Virtual Private Cloud, ⁶AWS Network ACLs: Everything You Need to Know

QUESTION 268

A company has a set of ecommerce applications. The applications need to be able to send messages to each other. Which AWS service meets this requirement?

- A. AWS Auto Scaling
- B. Elastic Load Balancing
- C. Amazon Simple Queue Service (Amazon SQS)
- D. Amazon Kinesis Data Streams

Correct Answer: C

Section:

Explanation:

Amazon Simple Queue Service (Amazon SQS) is a fully managed message queuing service that lets you send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be available¹. Amazon SQS is designed to provide a simple and reliable way for customers to decouple and connect components (microservices) together using queues². Queues are an important mechanism for providing fault tolerance and scalability in distributed systems, and help decouple different parts of your application³. The other options are not AWS services that are used specifically for sending messages between applications

QUESTION 269

A company wants to establish a schedule for rotating database user credentials. Which AWS service will support this requirement with the LEAST amount of operational overhead?

- A. AWS Systems Manager
- B. AWS Secrets Manager
- C. AWS License Manager
- D. AWS Managed Services

Correct Answer: B

Section:

Explanation:

AWS Secrets Manager is a service that helps you protect access to your applications, services, and IT resources. This service enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle. Users and applications retrieve secrets with a call to Secrets Manager APIs, eliminating the need to hardcode sensitive information in plain text. Secrets Manager offers secret rotation with built-in integration for Amazon RDS, Amazon Redshift, Amazon DocumentDB, and other AWS services¹. You can also extend Secrets Manager to rotate other types of secrets, such as credentials for Oracle, SQL Server, or MongoDB databases, by using custom AWS Lambda functions². Secrets Manager enables you to control access to secrets using fine-grained permissions and audit secret rotation centrally for resources in the AWS Cloud, third-party services, and on-premises³. Therefore, AWS Secrets Manager supports the requirement of rotating database user credentials with the least amount of operational overhead, compared to the other options. Reference:
What Is AWS Secrets Manager? - AWS Secrets Manager
Rotating Your AWS Secrets Manager Secrets - AWS Secrets Manager
AWS Secrets Manager Features - AWS Secrets Manager

QUESTION 270

Which AWS service can run a managed PostgreSQL database that provides online transaction processing (OLTP)?

- A. Amazon DynamoDB
- B. Amazon Athena
- C. Amazon RDS
- D. Amazon EMR

Correct Answer: C

Section:

Explanation:

Amazon RDS is a fully managed relational database service that supports several database engines, including PostgreSQL. Amazon RDS can run a managed PostgreSQL database that provides online transaction processing (OLTP), which is a type of database workload that handles frequent read and write operations on small amounts of data. Amazon RDS for PostgreSQL offers high performance, availability, scalability, security, and compatibility with the PostgreSQL community edition. Amazon RDS also provides automated backups, point-in-time recovery, encryption, monitoring, and maintenance for PostgreSQL databases. Reference:

Hosted PostgreSQL - Amazon RDS for PostgreSQL

OLTP Database, MySQL And PostgreSQL Managed Database - Amazon Aurora

PostgreSQL options on AWS: Self- managed, managed, and serverless

QUESTION 271

Which complimentary AWS service or tool creates data-driven business cases for cloud planning?

- A. Migration Evaluator
- B. AWS Billing Conductor
- C. AWS Billing Console
- D. Amazon Forecast

Correct Answer: A

Section:

Explanation:

Migration Evaluator is a cloud-based service that provides organizations with a comprehensive assessment of their current IT environment and estimates the cost savings and performance improvements that can be achieved by migrating to AWS. Migration Evaluator helps users build a data-driven business case for AWS by discovering over-provisioned on-premises instances, providing recommendations for cost-effective AWS alternatives, and analyzing existing licenses and cost comparisons of Bring Your Own License (BYOL) and License Included (LI) options

QUESTION 272

Which option is a customer responsibility when using Amazon DynamoDB under the AWS Shared Responsibility Model?

- A. Physical security of DynamoDB
- B. Patching of DynamoDB
- C. Access to DynamoDB tables
- D. Encryption of data at rest in DynamoDB

Correct Answer: C

Section:

Explanation:

According to the AWS Shared Responsibility Model, AWS is responsible for the security of the cloud, while the customer is responsible for the security in the cloud. This means that AWS is responsible for protecting the infrastructure that runs AWS services, such as DynamoDB, while the customer is responsible for properly configuring the security of the provided service. For abstracted services, such as DynamoDB, the customer is primarily responsible for managing their data, classifying their assets, and using IAM tools to apply the appropriate permissions. Therefore, the customer is responsible for controlling the access to DynamoDB tables, such as by creating IAM policies, roles, and users, and using encryption and authentication mechanisms. Reference:

Shared Responsibility Model - Amazon Web Services (AWS)

Security and compliance in Amazon DynamoDB - Amazon DynamoDB



What is Shared Responsibility Model? - Check Point Software

QUESTION 273

Using AWS Identity and Access Management (IAM) to grant access only to the resources needed to perform a task is a concept known as:

- A. restricted access.
- B. as-needed access.
- C. least privilege access.
- D. token access.

Correct Answer: C

Section:

Explanation:

The concept of granting access only to the resources needed to perform a task is known as least privilege access. This is a security best practice in IAM that helps to reduce the risk of unauthorized or malicious actions. By applying least privilege access, you can limit the permissions of your IAM users, groups, and roles to the minimum required for their specific tasks. You can also use conditions, permissions boundaries, and IAM Access Analyzer to further restrict and verify access. Reference: Security best practices in IAM, Policies and permissions in IAM, Use IAM policies to grant the least privileges required to access Amazon RDS resources, How to Design a Least Privilege Architecture in AWS, 12 Azure & AWS IAM Security Best Practices

QUESTION 274

Which AWS feature provides a no-cost platform for AWS users to join community groups, ask questions, find answers, and read community-generated articles about best practices?

- A. AWS Knowledge Center
- B. AWS re:Post
- C. AWS 10
- D. AWS Enterprise Support



Correct Answer: B

Section:

Explanation:

AWS re:Post is a no-cost platform for AWS users to join community groups, ask questions, find answers, and read community-generated articles about best practices. AWS re:Post is a social media platform that connects AWS users with each other and with AWS experts. Users can create posts, comment on posts, follow topics, and join groups related to AWS services, solutions, and use cases. AWS re:Post also features live event feeds, community stories, and AWS Hero profiles. AWS re:Post is a great way to learn from the AWS community, share your knowledge, and get inspired. Reference:

AWS re:Post

Join the Conversation

QUESTION 275

Which of the following is a managed AWS service that is used specifically for extract, transform, and load (ETL) data?

- A. Amazon Athena
- B. AWS Glue
- C. Amazon S3
- D. AWS Snowball Edge

Correct Answer: B

Section:

Explanation:

AWS Glue is a serverless data integration service that makes it easy to discover, prepare, move, and integrate data from multiple sources for analytics, machine learning, and application development. You can use various data integration engines, such as ETL, ELT, batch, and streaming, and manage your data in a centralized data catalog. AWS Glue is designed specifically for extract, transform, and load (ETL) data, whereas the other options are not.

QUESTION 276

Which AWS service or feature can be used to create a private connection between an on-premises workload and an AWS Cloud workload?

- A. Amazon Route 53
- B. Amazon Macie
- C. AWS Direct Connect
- D. AWS PrivaleLink

Correct Answer: C

Section:

Explanation:

AWS Direct Connect is a service that establishes a dedicated network connection between your on-premises network and one or more AWS Regions. AWS Direct Connect can be used to create a private connection between an on-premises workload and an AWS Cloud workload, bypassing the public internet and reducing network costs, latency, and bandwidth issues. AWS Direct Connect can also provide increased security and reliability for your hybrid cloud applications and data transfers. Reference:

AWS Direct Connect

What is AWS Direct Connect?

AWS Direct Connect User Guide

QUESTION 277

What is the best resource for a user to find compliance-related information and reports about AWS?

- A. AWS Artifact
- B. AWS Marketplace
- C. Amazon Inspector
- D. Increase operational costs across data centers.



Correct Answer: A

Section:

Explanation:

AWS Artifact is a self-service portal that provides on-demand access to AWS security and compliance reports and select online agreements. Users can download reports such as AWS ISO certifications, PCI reports, SOC reports, and GDPR DPA, and review and accept agreements such as BAA and NDA. AWS Artifact helps users to understand and meet compliance requirements for various standards and regulations that apply to AWS services and infrastructure. AWS Artifact is the best resource for a user to find compliance-related information and reports about AWS, whereas the other options are not

QUESTION 278

Which option is a benefit of the economies of scale based on the advantages of cloud computing?

- A. The ability to trade variable expense for fixed expense
- B. Increased speed and agility
- C. Lower variable costs over fixed costs
- D. Increased operational costs across data centers

Correct Answer: B

Section:

Explanation:

Economies of scale are the cost advantages that result from increasing the scale of production or operation. In cloud computing, economies of scale are achieved by pooling resources and sharing them among multiple users, which reduces the unit cost of computing and storage. One of the benefits of economies of scale in cloud computing is increased speed and agility, which means the ability to deploy applications faster and respond to changing business needs more quickly. Cloud computing allows users to access computing resources on demand, without having to invest in expensive infrastructure or wait for lengthy provisioning processes. This enables users to scale up or down as needed, experiment with new ideas, and deliver value to customers faster. Reference:

QUESTION 279

Which AWS service or feature improves network performance by sending traffic through the AWS worldwide network infrastructure?

- A. Route table
- B. AWS Transit Gateway
- C. AWS Global Accelerator
- D. Amazon VPC

Correct Answer: C

Section:

Explanation:

AWS Global Accelerator is a service that improves network performance by sending traffic through the AWS worldwide network infrastructure. It uses the AWS global network to direct TCP or UDP traffic to a healthy application endpoint in the closest AWS Region to the client. This provides improvements in terms of latency, throughput, and jitter. Global Accelerator also introduces features such as TCP termination at the edge, jumbo frame support, and large receive side window and TCP buffers to optimize data transfer¹². Route table, AWS Transit Gateway, and Amazon VPC are not services or features that improve network performance by sending traffic through the AWS worldwide network infrastructure. Route table is a resource that defines how traffic is routed within a VPC³. AWS Transit Gateway is a service that enables you to connect your VPCs and on-premises networks to a single gateway⁴. Amazon VPC is a service that lets you provision a logically isolated section of the AWS Cloud where you can launch AWS resources in a virtual network that you define⁵. Reference: Achieve up to 60% better performance for internet traffic with AWS Global Accelerator, Improving Performance on AWS and Hybrid Networks, Route tables, AWS Transit Gateway, Amazon Virtual Private Cloud (VPC)

QUESTION 280

Which tasks are the customer's responsibility, according to the AWS shared responsibility model? (Select TWO.)

- A. Establish the global infrastructure.
- B. Perform client-side data encryption.
- C. Configure IAM credentials.
- D. Secure edge locations.
- E. Patch Amazon RDS DB instances.

Correct Answer: B, C

Section:

Explanation:

According to the AWS shared responsibility model, AWS is responsible for the security of the cloud, while the customer is responsible for the security in the cloud. This means that AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud, such as the global network, the hardware, the software, and the facilities. The customer is responsible for properly configuring the security of the provided service, such as the guest operating system, the application software, the data, and the network traffic. For abstracted services, such as Amazon RDS, AWS operates the infrastructure layer, the operating system, and the database software, while the customer is responsible for managing their data, classifying their assets, and using IAM tools to apply the appropriate permissions¹².

Therefore, the tasks that are the customer's responsibility are:

Perform client-side data encryption: The customer is responsible for encrypting their data before sending it to AWS, and decrypting it after receiving it from AWS. This ensures that the data is protected in transit and at rest. AWS provides various encryption options, such as AWS Key Management Service (AWS KMS), AWS CloudHSM, and AWS Certificate Manager (ACM)³.

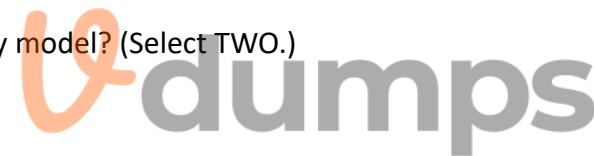
Configure IAM credentials: The customer is responsible for creating and managing IAM users, groups, roles, and policies that control the access to AWS resources and services. IAM credentials include user names, passwords, access keys, and permissions⁴.

The tasks that are not the customer's responsibility are:

Establish the global infrastructure: AWS is responsible for building and maintaining the global network of regions, availability zones, and edge locations that provide low latency, high availability, and fault tolerance for the AWS Cloud⁵.

Secure edge locations: AWS is responsible for protecting the physical security of the edge locations, which are sites that deliver cached content to end users with improved performance⁶.

Patch Amazon RDS DB instances: AWS is responsible for applying patches and updates to the operating system and the database software of the Amazon RDS DB instances, which are managed relational database service for



MySQL, PostgreSQL, Oracle, SQL Server, and Amazon Aurora. Reference:
Shared Responsibility Model - Amazon Web Services (AWS)
Shared responsibility model - Amazon Web Services: Risk and Compliance
Encryption - Amazon Web Services (AWS)
What Is IAM? - AWS Identity and Access Management
Global Infrastructure - Amazon Web Services (AWS)
Amazon CloudFront Features - Content Delivery Network (CDN)
[What Is Amazon Relational Database Service (Amazon RDS)? - Amazon Relational Database Service]

QUESTION 281

Which Amazon EC2 pricing model is the MOST cost efficient for an uninterruptible workload that runs once a year for 24 hours?

- A. On-Demand Instances
- B. Reserved Instances
- C. Spot Instances
- D. Dedicated Instances

Correct Answer: A

Section:

Explanation:

On-Demand Instances are the most cost-efficient pricing model for an uninterruptible workload that runs once a year for 24 hours. On-Demand Instances let you pay for compute capacity by the hour or second, depending on which instances you run. No long-term commitments or up-front payments are required. You can increase or decrease your compute capacity to meet the demands of your application and only pay the specified hourly rates for the instance you use¹. This model is suitable for developing/testing applications with short-term or unpredictable workloads². The other pricing models are not cost-efficient for this use case. Reserved Instances and Savings Plans require a commitment to a consistent amount of usage, in USD per hour, for a term of 1 or 3 years. They provide significant discounts compared to On-Demand Instances, but they are not flexible or scalable for workloads that run only once a year². Spot Instances are the cheapest option, but they are not suitable for uninterruptible workloads, as they can be reclaimed by AWS at any time. They are recommended for applications that have flexible start and end times, or that are only feasible at very low compute prices¹². Dedicated Instances are designed for compliance and licensing requirements, not for cost optimization. They are more expensive than the other options, as they run on single-tenant hardware¹². Reference: Amazon EC2 -- Secure and resizable compute capacity -- AWS, Amazon EC2 - How AWS Pricing Works

QUESTION 282

Which AWS Cloud benefit gives a company the ability to quickly deploy cloud resources to access compute, storage, and database infrastructures in a matter of minutes?

- A. Elasticity
- B. Cost savings
- C. Agility
- D. Reliability

Correct Answer: C

Section:

Explanation:

Agility is the AWS Cloud benefit that gives a company the ability to quickly deploy cloud resources to access compute, storage, and database infrastructures in a matter of minutes. Agility means that you can reduce the time to make IT resources available to your developers from weeks to just minutes, resulting in a dramatic increase in innovation and responsiveness¹. AWS provides a range of services and tools that enable you to launch, scale, and manage your cloud applications with ease and speed, such as AWS CloudFormation, AWS Elastic Beanstalk, AWS CodeDeploy, and AWS Quick Starts²³⁴⁵. Reference:

Six advantages of cloud computing - Overview of Amazon Web Services

[AWS CloudFormation]

[AWS Elastic Beanstalk]

[AWS CodeDeploy]

AWS Quick Starts

QUESTION 283

Which AWS service is used to provide encryption for Amazon EBS?

- A. AWS Certificate Manager
- B. AWS Systems Manager
- C. AWS KMS
- D. AWS Config

Correct Answer: C

Section:

Explanation:

AWS KMS is the service that is used to provide encryption for Amazon EBS. AWS KMS is a managed service that enables you to easily create and control the encryption keys used to encrypt your data. Amazon EBS uses AWS KMS to encrypt and decrypt your EBS volumes and snapshots. You can choose to use either the default AWS managed CMK or your own customer managed CMK for encryption. AWS KMS also provides features such as key rotation, audit logging, and access control policies to help you manage your encryption keys and protect your data¹². The other services are not used to provide encryption for Amazon EBS. AWS Certificate Manager is a service that lets you provision, manage, and deploy public and private SSL/TLS certificates for use with AWS services and your internal connected resources³. AWS Systems Manager is a service that provides a unified user interface to view and manage your AWS resources, automate common operational tasks, and apply compliance policies⁴. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. Reference: Amazon EBS encryption, AWS Key Management Service, AWS Certificate Manager, AWS Systems Manager, [AWS Config]

QUESTION 284

A company operates a petabyte-scale data warehouse to analyze its data. The company wants a solution that will not require manual hardware and software management. Which AWS service will meet these requirements?

- A. Amazon DocumentDB (with MongoDB compatibility)
- B. Amazon Redshift
- C. Amazon Neptune
- D. Amazon ElastiCache

Correct Answer: B

Section:

Explanation:

Amazon Redshift is a fast, fully managed, petabyte-scale data warehouse service that makes it simple and cost-effective to analyze all your data using your existing business intelligence tools. You can start small with no commitments, and scale to petabytes for less than a tenth of the cost of traditional solutions. Amazon Redshift does not require manual hardware and software management, as AWS handles all the tasks such as provisioning, patching, backup, recovery, failure detection, and repair¹². Amazon Redshift also offers serverless capabilities, which allow you to access and analyze data without any configurations or capacity planning. Amazon Redshift automatically scales the data warehouse capacity to deliver fast performance for even the most demanding and unpredictable workloads³. Therefore, Amazon Redshift meets the requirements of the company, compared to the other options.

The other options are not suitable for the company's requirements, because:

Amazon DocumentDB (with MongoDB compatibility) is a fast, scalable, highly available, and fully managed document database service that supports MongoDB workloads. It is not designed for petabyte-scale data warehousing or analytics⁴.

Amazon Neptune is a fast, reliable, and fully managed graph database service that makes it easy to build and run applications that work with highly connected datasets. It is not designed for petabyte-scale data warehousing or analytics⁵.

Amazon ElastiCache is a fully managed in-memory data store and cache service that supports Redis and Memcached. It is not designed for petabyte-scale data warehousing or analytics.

What is Amazon Redshift? - Amazon Redshift

Amazon Redshift Features - Amazon Redshift

Amazon Redshift Serverless - Amazon Redshift

What Is Amazon DocumentDB (with MongoDB compatibility)? - Amazon DocumentDB (with MongoDB compatibility)

What Is Amazon Neptune? - Amazon Neptune

[What Is Amazon ElastiCache for Redis? - Amazon ElastiCache for Redis]

QUESTION 285

A company needs to perform data processing once a week that typically takes about 5 hours to complete. Which AWS service should the company use for this workload?

- A. AWS Lambda
- B. Amazon EC2
- C. AWS CodeDeploy
- D. AWS Wavelength

Correct Answer: B

Section:

Explanation:

Amazon EC2 is the most suitable AWS service for this workload. Amazon EC2 provides secure, resizable compute capacity in the cloud. You can launch virtual servers, called instances, and configure them according to your needs. You can choose from different instance types, sizes, and families, and pay only for the resources you use. Amazon EC2 also offers features such as auto scaling, load balancing, security groups, and placement groups to optimize your performance, availability, and security¹. Amazon EC2 is ideal for workloads that require consistent and reliable compute power, such as data processing, web hosting, gaming, and high-performance computing². The other services are not suitable for this workload. AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. You pay only for the compute time you consume. Lambda is best for short-lived, stateless, and event-driven workloads that can be completed in under 15 minutes³. AWS CodeDeploy is a deployment service that automates application deployments to Amazon EC2 instances, on-premises instances, serverless Lambda functions, or Amazon ECS services. CodeDeploy is not a compute service, but a tool to help you update your applications with minimal downtime⁴. AWS Wavelength is a service that delivers ultra-low latency applications for 5G devices. Wavelength embeds AWS compute and storage services at the edge of telecommunications providers' 5G networks. Wavelength is designed for mobile edge computing, such as interactive gaming, video streaming, and augmented reality. Reference: Amazon EC2, Amazon EC2 Use Cases, AWS Lambda, AWS CodeDeploy, [AWS Wavelength]

QUESTION 286

A company wants to provide managed Windows virtual desktops and applications to its remote employees over secure network connections. Which AWS services can the company use to meet these requirements? (Select TWO.)

- A. Amazon Connect
- B. Amazon AppStream 2.0
- C. Amazon Workspaces
- D. AWS Site-to-Site VPN
- E. Amazon Elastic Container Service (Amazon ECS)



Correct Answer: B, C

Section:

Explanation:

Amazon AppStream 2.0 and Amazon WorkSpaces are AWS services that can be used to provide managed Windows virtual desktops and applications to remote employees over secure network connections. Amazon AppStream 2.0 is a fully managed application streaming service that allows users to access Windows desktop applications from any device, without installing or managing any software. Amazon AppStream 2.0 delivers applications over an encrypted connection and isolates them from the underlying infrastructure, ensuring security and compliance¹. Amazon WorkSpaces is a fully managed desktop virtualization service that allows users to access Windows or Linux desktops from any device, with a consistent user experience. Amazon WorkSpaces provides persistent, cloud-based virtual desktops that can be customized and scaled according to the user's needs. Amazon WorkSpaces also offers encryption, backup, and monitoring features to ensure security and reliability². Reference:

Amazon AppStream 2.0

Amazon WorkSpaces

QUESTION 287

Which AWS Cloud service can send alerts to customers if custom spending thresholds are exceeded?

- A. AWS Budgets
- B. AWS Cost Explorer
- C. AWS Cost Allocation Tags
- D. AWS Organizations

Correct Answer: A

Section:

Explanation:

AWS Budgets is a service that allows you to set custom budgets for your AWS costs and usage, and receive alerts via email or Amazon SNS notifications if you exceed or are forecasted to exceed your budgeted amount¹. You can create budgets based on different dimensions, such as service, linked account, tag, or purchase option, and define various types of alerts, such as actual, forecasted, or RI utilization alerts². You can also configure custom actions to automatically execute remediation tasks or workflows when a budget threshold is breached³. AWS Budgets is the only service among the options that can send alerts to customers if custom spending thresholds are exceeded. The other options are not AWS services that provide this functionality.

QUESTION 288

Which options are AWS Cloud Adoption Framework (AWS CAF) cloud transformation journey recommendations? (Select TWO.)

- A. Envision phase
- B. Align phase
- C. Assess phase
- D. Mobilize phase
- E. Migrate and modernize phase

Correct Answer: A, B

Section:**Explanation:**

The AWS Cloud Adoption Framework (AWS CAF) is a tool that helps organizations plan and execute their cloud transformation journey. The AWS CAF defines four phases of the cloud transformation journey: Envision, Align, Launch, and Scale. Each phase has a specific purpose and outcome¹:

Envision: This phase helps you define your vision, goals, and expected outcomes for your cloud transformation. It also helps you identify and prioritize transformation opportunities across four domains: business, people, governance, and platform².

Align: This phase helps you identify capability gaps across six perspectives: business, people, governance, platform, security, and operations. It also helps you create strategies for improving your cloud readiness, ensure stakeholder alignment, and facilitate relevant organizational change management activities³.

Launch: This phase helps you deliver pilot initiatives in production and demonstrate incremental business value. It also helps you learn from pilots and adjust your approach before scaling to full production⁴.

Scale: This phase helps you expand production pilots and business value to desired scale and ensure that the business benefits associated with your cloud investments are realized and sustained.

The options A and B are the correct AWS CAF cloud transformation journey recommendations, as they are part of the four phases defined by the AWS CAF. The options C, D, and E are not AWS CAF cloud transformation journey recommendations, as they are not part of the four phases defined by the AWS CAF.

QUESTION 289

Which responsibility belongs to AWS when a company hosts its databases on Amazon EC2 instances?

- A. Database backups
- B. Database software patches
- C. Operating system patches
- D. Operating system installations

Correct Answer: C

Section:**Explanation:**

When a company hosts its databases on Amazon EC2 instances, AWS and the customer share the responsibility for the security and management of the database environment. According to the AWS shared responsibility model, AWS is responsible for the security of the cloud, while the customer is responsible for the security in the cloud. This means that AWS is responsible for protecting the infrastructure that runs the EC2 instances, such as the hardware, software, networking, and facilities. The customer is responsible for properly configuring the security of the provided service, such as the guest operating system, the database software, the data, and the network traffic^{1,2}.

One of the tasks that belongs to AWS when a company hosts its databases on Amazon EC2 instances is operating system patches. AWS provides regular updates and patches to the operating system of the EC2 instances, which are applied automatically by default. The customer can also choose to manually apply the patches or schedule them for a specific time window³. Operating system patches are important for maintaining the security and performance of the EC2 instances and the databases running on them.

The other tasks that belong to AWS when a company hosts its databases on Amazon EC2 instances are:

Operating system installations: AWS provides a variety of operating system options for the EC2 instances, such as Linux, Windows, and Amazon Linux. The customer can choose the operating system that best suits their database needs and AWS will install it on the EC2 instances⁴.

Server maintenance: AWS performs regular maintenance and repairs on the physical servers that host the EC2 instances, ensuring that they are in optimal condition and have adequate power, cooling, and network connectivity⁵.

Hardware lifecycle: AWS manages the lifecycle of the hardware that supports the EC2 instances, such as replacing faulty components, upgrading equipment, and decommissioning old servers.

The tasks that do not belong to AWS when a company hosts its databases on Amazon EC2 instances are:

Database backups: The customer is responsible for backing up their data and databases on the EC2 instances, using tools such as Amazon S3, Amazon EBS snapshots, or AWS Backup. Database backups are essential for data protection and recovery in case of failures or disasters.

Database software patches: The customer is responsible for applying patches and updates to the database software on the EC2 instances, such as MySQL, PostgreSQL, Oracle, or SQL Server. Database software patches are important for fixing bugs, improving features, and addressing security vulnerabilities.

Database software install: The customer is responsible for installing the database software on the EC2 instances, choosing the version and configuration that meets their requirements. AWS provides some preconfigured AMIs (Amazon Machine Images) that include common database software, or the customer can use their own custom AMIs.

Shared Responsibility Model - Amazon Web Services (AWS)

Shared responsibility model - Amazon Web Services: Risk and Compliance

Patching Amazon EC2 instances - AWS Systems Manager

Amazon EC2 FAQs - Amazon Web Services

Maintenance and Retirements - Amazon Elastic Compute Cloud

[Hardware Lifecycle - Amazon Web Services (AWS)]

[Backing Up Your Data - Amazon Web Services (AWS)]

[Database Patching - Amazon Web Services (AWS)]

[Installing Database Software on Amazon EC2 Instances - Amazon Web Services (AWS)]

QUESTION 290

Which AWS service provides command line access to AWS tools and resources directly (from a web browser)?

- A. AWS CloudHSM
- B. AWS CloudShell
- C. Amazon Workspaces
- D. AWS Cloud Map

Correct Answer: B

Section:

Explanation:

AWS CloudShell is the service that provides command line access to AWS tools and resources directly from a web browser. AWS CloudShell is a browser-based shell that makes it easy to securely manage, explore, and interact with your AWS resources. It comes pre-authenticated with your console credentials and common development and administration tools are pre-installed, so no local installation or configuration is required. You can open AWS CloudShell from the AWS Management Console with a single click and start running commands and scripts using the AWS Command Line Interface (AWS CLI), Git, or SDKs. AWS CloudShell also provides persistent home directories with 1 GB of storage per AWS Region¹². The other services do not provide command line access to AWS tools and resources directly from a web browser. AWS CloudHSM is a service that helps you meet corporate, contractual and regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) appliances within the AWS Cloud³. Amazon WorkSpaces is a service that provides a fully managed, secure Desktop-as-a-Service (DaaS) solution that runs on AWS⁴. AWS Cloud Map is a service that makes it easy for your applications to discover and connect to each other using logical names and attributes⁵. Reference: AWS CloudShell, AWS CloudShell -- Command-Line Access to AWS Resources, AWS CloudHSM, Amazon WorkSpaces, AWS Cloud Map

QUESTION 291

A developer needs to maintain a development environment infrastructure and a production environment infrastructure in a repeatable fashion. Which AWS service should the developer use to meet these requirements?

- A. AWS Ground Station
- B. AWS Shield
- C. AWS IoT Device Defender
- D. AWS CloudFormation

Correct Answer: D

Section:

Explanation:

AWS CloudFormation is a service that allows developers to model and provision their AWS infrastructure in a repeatable and declarative way, using code and templates. AWS CloudFormation enables developers to define the resources they need for their development and production environments, such as compute, storage, network, and application services, and automate their creation and configuration. AWS CloudFormation also provides features such as change sets, nested stacks, and rollback triggers to help developers manage and update their infrastructure safely and efficiently¹². Reference:

AWS CloudFormation

What is AWS CloudFormation?

QUESTION 292

A company wants to migrate its applications to the AWS Cloud. The company plans to identify and prioritize any business transformation opportunities and evaluate its AWS Cloud readiness. Which AWS service or tool should the company use to meet these requirements?

- A. AWS Cloud Adoption Framework (AWS CAF)
- B. AWS Managed Services (AMS)
- C. AWS Well-Architected Framework
- D. AWS Migration Hub

Correct Answer: A

Section:

Explanation:

AWS Cloud Adoption Framework (AWS CAF) is a set of best practices, tools, and guidance that helps organizations get started with cloud technologies. AWS CAF helps organizations identify and prioritize transformation opportunities, evaluate and improve their cloud readiness, and iteratively evolve their transformation roadmap. AWS CAF groups its capabilities in six perspectives: Business, People, Governance, Platform, Security, and Operations. Each perspective comprises a set of capabilities that functionally related stakeholders own or manage in the cloud transformation journey¹

AWS Managed Services (AMS) is a service that operates AWS infrastructure on behalf of customers, providing a secure AWS Landing Zone, features that help meet various compliance program requirements, a proven enterprise operating model, on-going cost optimization, and day-to-day infrastructure management. AMS does not help customers identify and prioritize business transformation opportunities or evaluate their cloud readiness²

AWS Well-Architected Framework is a set of six pillars and lenses that help cloud architects design and run workloads in the cloud. It provides a consistent approach for customers and AWS Partners to evaluate and implement designs that scale with their needs. AWS Well-Architected Framework helps customers understand the pros and cons of decisions they make while building systems on AWS, but it does not help them identify and prioritize business transformation opportunities³

AWS Migration Hub is a tool that lets customers discover, plan, and track their existing servers and applications for migration to AWS. It offers journey templates, cross-team collaboration, application and server discovery, strategy recommendations, orchestration and simple dashboard. AWS Migration Hub simplifies the migration and modernization process, but it does not help customers identify and prioritize business transformation opportunities or evaluate their cloud readiness⁴

QUESTION 293

A social media company wants to protect its web application from common web exploits such as SQL injections and cross-site scripting. Which AWS service will meet these requirements?

- A. Amazon Inspector
- B. AWS WAF
- C. Amazon GuardDuty
- D. Amazon CloudWatch

Correct Answer: B

Section:

Explanation:

AWS WAF is a web application firewall service that helps protect web applications from common web exploits that could affect availability, compromise security, or consume excessive resources. AWS WAF gives you control over which traffic to allow or block to your web applications by defining customizable web security rules. You can use AWS WAF to create rules that block common attack patterns, such as SQL injection or cross-site scripting, and rules that filter out specific traffic patterns you define¹. AWS WAF also integrates with other AWS services, such as Amazon CloudFront, Amazon API Gateway, AWS AppSync, and AWS Load Balancer, to provide a comprehensive defense against web attacks². Therefore, AWS WAF meets the requirements of the social media company, compared to the other options.

The other options are not suitable for the social media company's requirements, because:

Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Amazon Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices. However, Amazon Inspector does not provide a web application firewall service that can block malicious web requests³.

Amazon GuardDuty is a threat detection service that continuously monitors for malicious activity and unauthorized behavior to protect your AWS accounts, workloads, and data stored in Amazon S3. Amazon GuardDuty analyzes and processes the following data sources: VPC Flow Logs, AWS CloudTrail event logs, and DNS logs. However, Amazon GuardDuty does not provide a web application firewall service that can block malicious web requests⁴.

Amazon CloudWatch is a monitoring and observability service that provides data and actionable insights to monitor your applications, respond to system-wide performance changes, optimize resource utilization, and get a unified view of operational health. Amazon CloudWatch collects monitoring and operational data in the form of logs, metrics, and events, and visualizes it using automated dashboards, alarms, and notifications. However, Amazon CloudWatch does not provide a web application firewall service that can block malicious web requests.

What Is AWS WAF? - AWS WAF, AWS Firewall Manager, and AWS Shield Advanced

AWS WAF Features - AWS WAF, AWS Firewall Manager, and AWS Shield Advanced

What Is Amazon Inspector? - Amazon Inspector

What Is Amazon GuardDuty? - Amazon GuardDuty

[What Is Amazon CloudWatch? - Amazon CloudWatch]

QUESTION 294

Which AWS services or features provide disaster recovery solutions for Amazon EC2 instances? (Select TWO.)

- A. EC2 Reserved Instances
- B. EC2 Amazon Machine Images (AMIs)
- C. Amazon Elastic Block Store (Amazon EBS) snapshots
- D. AWS Shield
- E. Amazon GuardDuty

Correct Answer: B, C

Section:

Explanation:

The correct answer is Band C. EC2 Amazon Machine Images (AMIs) and Amazon Elastic Block Store (Amazon EBS) snapshots are two AWS services that provide disaster recovery solutions for Amazon EC2 instances.

EC2 AMIs are preconfigured templates that contain the software configuration and data required to launch an EC2 instance. You can create AMIs from your running EC2 instances and use them to launch new instances in the same or different AWS Regions. This way, you can quickly recover your EC2 instances in case of a disaster that affects your primary Region or Availability Zone¹.

Amazon EBS snapshots are incremental backups of your Amazon EBS volumes. You can create snapshots of your volumes and store them in Amazon S3, which is a highly durable and scalable storage service. You can use snapshots to restore your volumes to a previous point in time or to create new volumes from snapshots. Snapshots can also be copied across AWS Regions, enabling you to recover your data in another Region in case of a disaster².

The other options are not directly related to disaster recovery for EC2 instances:

EC2 Reserved Instances are a pricing model that allows you to reserve EC2 capacity for a specific period of time and receive a discount on the hourly charge. Reserved Instances do not provide any disaster recovery benefits, as they are only a billing option³.

AWS Shield is a managed service that protects your AWS resources from distributed denial-of-service (DDoS) attacks. AWS Shield provides basic protection for all AWS customers at no additional charge, and advanced protection for customers who need higher levels of detection and mitigation. AWS Shield does not provide any disaster recovery benefits, as it is only a security service⁴.

Amazon GuardDuty is a threat detection service that monitors your AWS account and workloads for malicious or unauthorized activity. Amazon GuardDuty analyzes various data sources, such as AWS CloudTrail, Amazon VPC Flow Logs, and DNS logs, to identify potential threats and alert you via Amazon CloudWatch Events or AWS Lambda. Amazon GuardDuty does not provide any disaster recovery benefits, as it is only a monitoring service⁵.

QUESTION 295

A user wants to allow applications running on an Amazon EC2 instance to make calls to other AWS services. The access granted must be secure. Which AWS service or feature should be used?

- A. Security groups
- B. AWS Firewall Manager
- C. IAM roles
- D. IAM user SSH keys



Correct Answer: C

Section:

Explanation:

IAM roles are a secure way to grant permissions to applications running on an Amazon EC2 instance to make calls to other AWS services. IAM roles are entities that have specific permissions policies attached to them. You can create an IAM role and associate it with an EC2 instance when you launch it or later. The applications on the instance can then use the temporary credentials provided by the role to access AWS resources that the role allows. This way, you do not have to store any long-term credentials or access keys on the instance, which reduces the risk of compromise or misuse¹².

The other options are not correct, because:

Security groups are virtual firewalls that control the inbound and outbound traffic for your EC2 instances. Security groups do not grant permissions to access other AWS services, but rather filter the network traffic based on rules that you define³.

AWS Firewall Manager is a service that helps you centrally configure and manage firewall rules across your accounts and resources. AWS Firewall Manager works with AWS WAF, AWS Shield Advanced, and Amazon VPC security groups. AWS Firewall Manager does not grant permissions to access other AWS services, but rather helps you enforce consistent security policies across your AWS infrastructure⁴.

IAM user SSH keys are credentials that allow you to connect to your EC2 instance using SSH. SSH keys do not grant permissions to access other AWS services, but rather authenticate your identity when you log in to your instance⁵.

Using an IAM role to grant permissions to applications running on Amazon EC2 instances - AWS Identity and Access Management

IAM roles for Amazon EC2 - Amazon Elastic Compute Cloud

Security groups for your VPC - Amazon Virtual Private Cloud

What is AWS Firewall Manager? - AWS Firewall Manager

Connecting to your Linux instance using SSH - Amazon Elastic Compute Cloud

QUESTION 296

A company needs to track the activity in its AWS accounts, and needs to know when an API call is made against its AWS resources. Which AWS tool or service can be used to meet these requirements?

- A. Amazon CloudWatch
- B. Amazon Inspector
- C. AWS CloudTrail
- D. AWS IAM



Correct Answer: C

Section:

Explanation:

AWS CloudTrail is the service that can be used to meet these requirements. AWS CloudTrail is a service that records AWS API calls for your account and delivers log files to you. The recorded information includes the identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the AWS service¹. You can use CloudTrail to track the activity in your AWS accounts, such as who made an API call, when it was made, and what resources were affected. You can also use CloudTrail to monitor the compliance, security, and governance of your AWS environment². The other services are not designed to track the activity and API calls in your AWS accounts. Amazon CloudWatch is a service that monitors and collects metrics, logs, and events from your AWS resources and applications. You can use CloudWatch to set alarms, visualize data, and automate actions based on predefined thresholds or rules³. Amazon Inspector is a service that helps you improve the security and compliance of your applications running on AWS. Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices⁴. AWS IAM is a service that enables you to manage access to AWS services and resources securely. IAM allows you to create and manage AWS users and groups, and use permissions to allow and deny their access to AWS resources. Reference: AWS CloudTrail, AWS CloudTrail -- Capture AWS API Activity, Amazon CloudWatch, Amazon Inspector, [AWS IAM]

QUESTION 297

A systems administrator created a new IAM user for a developer and assigned the user an access key instead of a user name and password. What is the access key used for?

- A. To access the AWS account as the AWS account root user
- B. To access the AWS account through the AWS Management Console
- C. To access the AWS account through a CLI
- D. To access all of a company's AWS accounts

Correct Answer: C

Section:

Explanation:

An access key is a pair of long-term credentials that consists of an access key ID and a secret access key. An access key is used to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK). An access key allows a user to access the AWS account through a CLI, which is a tool that enables users to interact with AWS services using commands in a terminal or a script¹².

The other options are not correct, because:

To access the AWS account as the AWS account root user, a user needs the email address and password associated with the account. The root user has complete access to all AWS resources and services in the account. However, it is not recommended to use the root user for everyday tasks³.

To access the AWS account through the AWS Management Console, a user needs a user name and password. The console is a web-based interface that allows users to manage their AWS resources and services using a graphical user interface⁴.

To access all of a company's AWS accounts, a user needs to use AWS Organizations, which is a service that enables users to centrally manage and govern multiple AWS accounts. AWS Organizations allows users to create groups of accounts and apply policies to them⁵.

Managing access keys for IAM users - AWS Identity and Access Management

What Is the AWS Command Line Interface? - AWS Command Line Interface

AWS account root user - AWS Identity and Access Management

What Is the AWS Management Console? - AWS Management Console

What Is AWS Organizations? - AWS Organizations

QUESTION 298

Which AWS service or feature provides log information of the inbound and outbound traffic on network interfaces in a VPC?

- A. Amazon CloudWatch Logs
- B. AWS CloudTrail
- C. VPC Flow Logs
- D. AWS Identity and Access Management (IAM)

Correct Answer: C

Section:

Explanation:

VPC Flow Logs is a feature that enables you to capture information about the IP traffic going to and from network interfaces in your VPC. Flow log data can be published to the following locations: Amazon CloudWatch Logs, Amazon S3, or Amazon Kinesis Data Firehose. You can use VPC Flow Logs to monitor network traffic, diagnose security issues, troubleshoot connectivity problems, and perform network forensics¹. Reference:

Logging IP traffic using VPC Flow Logs - Amazon Virtual Private Cloud

QUESTION 299

Which tool should a developer use to integrate AWS service features directly into an application?

- A. AWS Software Development Kit
- B. AWS CodeDeploy
- C. AWS Lambda
- D. AWS Batch

Correct Answer: A

Section:

Explanation:

AWS Software Development Kit (SDK) is a set of platform-specific tools for developers that let them integrate AWS service features directly into their applications. AWS SDKs provide libraries, code samples, documentation, and other resources to help developers write code that interacts with AWS APIs. AWS SDKs support various programming languages, such as Java, Python, Ruby, .NET, Node.js, Go, and more. AWS SDKs make it easier for developers to access AWS services, such as Amazon S3, Amazon EC2, Amazon DynamoDB, AWS Lambda, and more, from their applications. AWS SDKs also handle tasks such as authentication, error handling, retries, and data serialization, so developers can focus on their application logic.

QUESTION 300

A company is building a new application on AWS. The company needs the application to remain available if an individual application component fails.



Which design principle should the company use to meet this requirement?

- A. Disposable resources
- B. Automation
- C. Rightsizing
- D. Loose coupling

Correct Answer: D

Section:

Explanation:

Loose coupling is a design principle that involves reducing dependencies between application components so that they can operate independently. This approach ensures that the failure of one component does not affect the availability of the others, thereby improving the application's fault tolerance and resilience. Disposable resources, automation, and rightsizing are valuable principles in cloud architecture, but they do not directly address the requirement of remaining available despite the failure of an individual component like loose coupling does. References:

AWS Well-Architected Framework - Design Principles

QUESTION 301

Under the AWS shared responsibility model, which of the following is a responsibility of the customer?

- A. Shred disk drives before they leave a data center.
- B. Prevent customers from gathering packets or collecting traffic at the hypervisor level.
- C. Patch the guest operating system with the latest security patches.
- D. Maintain security systems that provide physical monitoring of data centers.

Correct Answer: C

Section:

Explanation:

Under the AWS shared responsibility model, AWS is responsible for the security 'of' the cloud, which includes the physical infrastructure, networking, and hypervisor layer. The customer, however, is responsible for security 'in' the cloud, which includes managing the security of their data, patching and maintaining their guest operating system and applications, and managing identity and access. The responsibilities of shredding disk drives, preventing packet capture at the hypervisor level, and physical monitoring are handled by AWS as part of its responsibility for security 'of' the cloud.

QUESTION 302

In which situations should a company create an IAM user instead of an IAM role? (Select TWO.)

- A. When an application that runs on Amazon EC2 instances requires access to other AWS services
- B. When the company creates AWS access credentials for individuals
- C. When the company creates an application that runs on a mobile phone that makes requests to AWS
- D. When the company needs to add users to IAM groups
- E. When users are authenticated in the corporate network and want to be able to use AWS without having to sign in a second time

Correct Answer: B, D

Section:

Explanation:

An IAM user is created when the company needs to provide unique credentials (username and password) to individuals who need access to the AWS Management Console or programmatic access (using access keys) to AWS services.

B . When the company creates AWS access credentials for individuals: Correct, as an IAM user is created to provide credentials for specific individuals.

D . When the company needs to add users to IAM groups: Correct, as IAM users can be added to groups to apply permissions and policies at a group level.

A . When an application that runs on Amazon EC2 instances requires access to other AWS services: Incorrect, as an IAM role is more appropriate for applications running on EC2 to assume temporary credentials.

C . When the company creates an application that runs on a mobile phone that makes requests to AWS: Incorrect, as using Cognito or a role with temporary credentials is more suitable.



E . When users are authenticated in the corporate network and want to be able to use AWS without having to sign in a second time: Incorrect, as this use case typically involves IAM roles combined with AWS Single Sign-On (SSO).

AWS Cloud References:

IAM Users and Groups

IAM Roles

QUESTION 303

A company wants to run its application on Amazon EC2 instances. The company needs to keep the application on-premises to meet a compliance requirement. Which AWS offering will meet these requirements?

- A. Dedicated Instances
- B. Amazon CloudFront
- C. AWS Fargate
- D. AWS Outposts

Correct Answer: D

Section:

Explanation:

AWS Outposts is an AWS offering that brings AWS infrastructure and services to a customer's on-premises location. It allows companies to run AWS services locally while meeting any regulatory or compliance requirements to keep data or applications on-premises. Dedicated Instances are EC2 instances that run on hardware dedicated to a single customer but are still within AWS data centers. Amazon CloudFront is a CDN service, and AWS Fargate is a serverless compute engine for containers, neither of which meets the requirement for running an application on-premises. References:

AWS Outposts

QUESTION 304

A company wants an AWS service to collect and process 10 TB of data locally and transfer the data to AWS. The company has intermittent connectivity. Which AWS service will meet these requirements?

- A. AWS Database Migration Service (AWS DMS)
- B. AWS DataSync
- C. AWS Backup
- D. AWS Snowball Edge

Correct Answer: D

Section:

Explanation:

The correct answer is D. AWS Snowball Edge.

AWS Snowball Edge is a physical device that can be used to collect and process data locally and then transfer it to AWS. It is designed for situations where there is limited or intermittent network connectivity, or where bandwidth costs are high. AWS Snowball Edge can store up to 80 TB of data and has compute and storage capabilities to run applications on the device¹.

AWS Database Migration Service (AWS DMS) is a service that helps migrate databases to AWS. It does not collect or process data locally, nor does it work offline².

AWS DataSync is a service that helps transfer data between on-premises storage systems and AWS storage services. It does not collect or process data locally, and it requires a network connection to work³.

AWS Backup is a service that helps automate and manage backups across AWS services. It does not collect or process data locally, nor does it transfer data to AWS. It only backs up data that is already in AWS⁴.

References: