Number: AI-900
Passing Score: 800
Time Limit: 120
File Version: 5.0

Exam Code: AI-900
Exam Name: Microsoft Azure AI Fundamentals

Exam A

QUESTION 1
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can use the Speech service to transcribe a call to text.	○	○
You can use the Text Analytics service to extract key entities from a call transcript.	○	○
You can use the Speech service to translate the audio of a call to a different language.	○	○

Answer Area:

Answer Area

Statements	Yes	No
You can use the Speech service to transcribe a call to text.	○	○
You can use the Text Analytics service to extract key entities from a call transcript.	○	○
You can use the Speech service to translate the audio of a call to a different language.	○	○

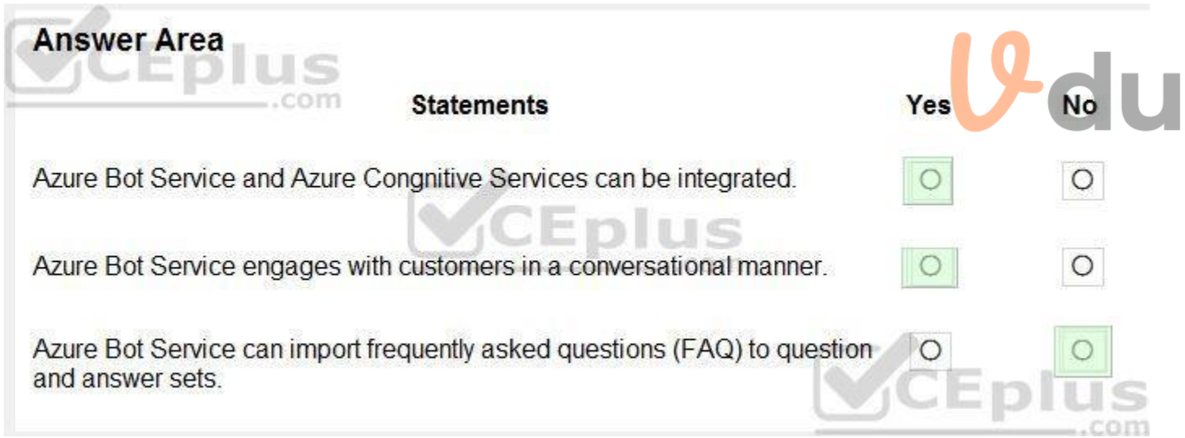
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-gb/azure/cognitive-services/text-analytics/overview

https://azure.microsoft.com/en-gb/services/cognitive-services/speech-services/

QUESTION 2
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area:



Section:
Explanation:
Box 1: Yes
Azure bot service can be integrated with the powerful AI capabilities with Azure Cognitive Services.
Box 2: Yes
Azure bot service engages with customers in a conversational manner.
Box 3: No
The QnA Maker service creates knowledge base, not question and answers sets.
Note: You can use the QnA Maker service and a knowledge base to add question-and-answer support to your bot. When you create your knowledge base, you seed it with questions and answers.
Reference:
https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-tutorial-add-qna

QUESTION 3
DRAG DROP

Match the tool to the Azure Machine Learning task.
To answer, drag the appropriate tool from the column on the left to its tasks on the right. Each tool may be used once, more than once, or not at all NOTE: Each correct match is worth one point.

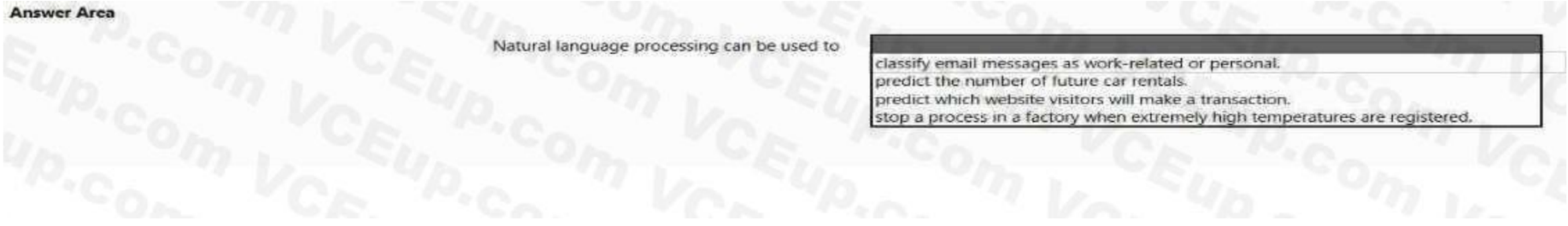
Select and Place:

Correct Answer:

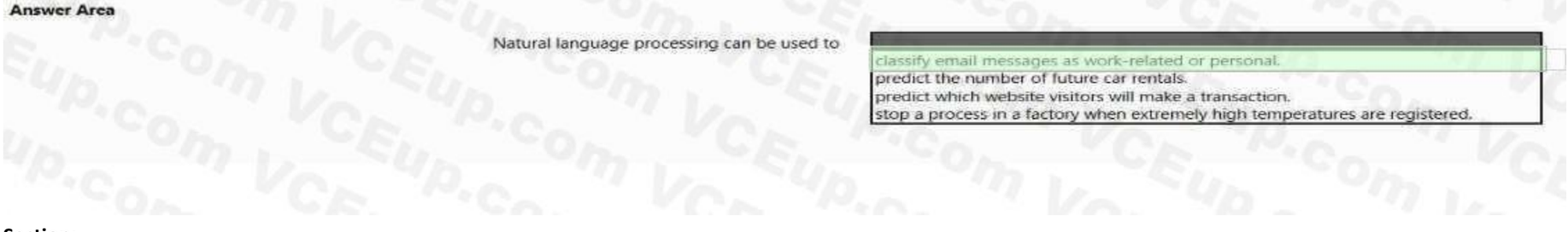
Section:
Explanation:

QUESTION 4
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



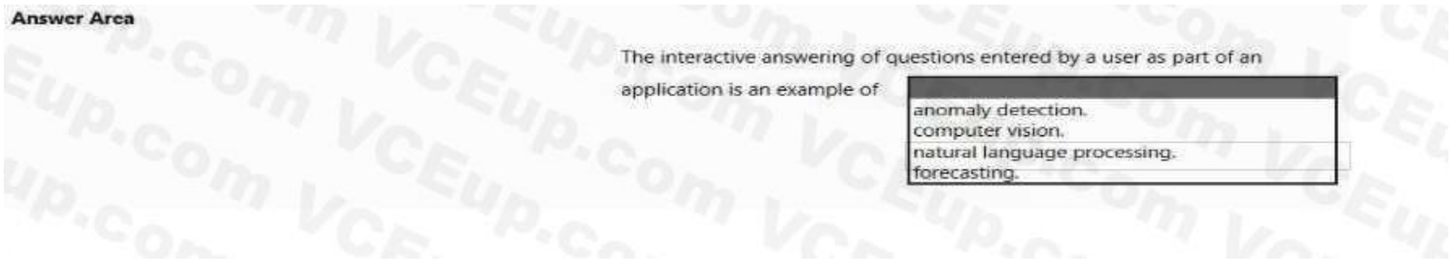
Answer Area:



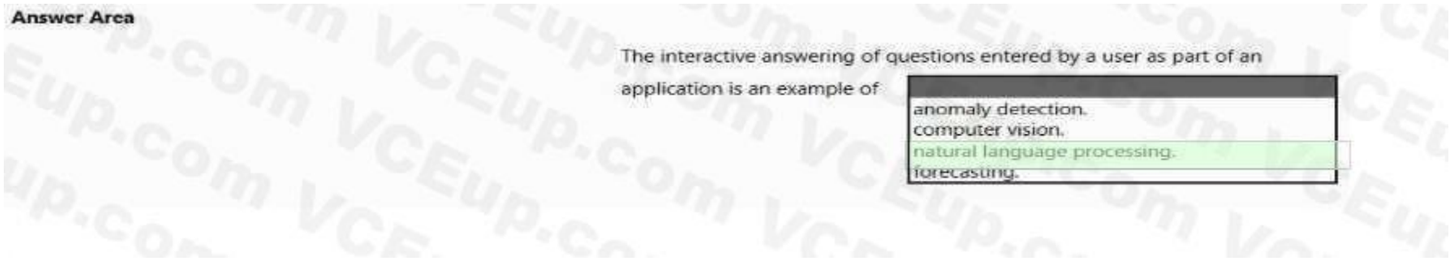
Section:
Explanation:

QUESTION 5
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



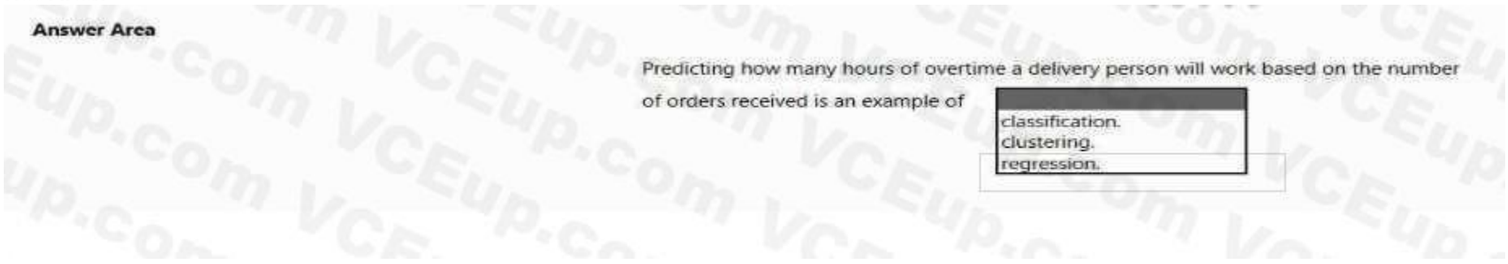
Answer Area:



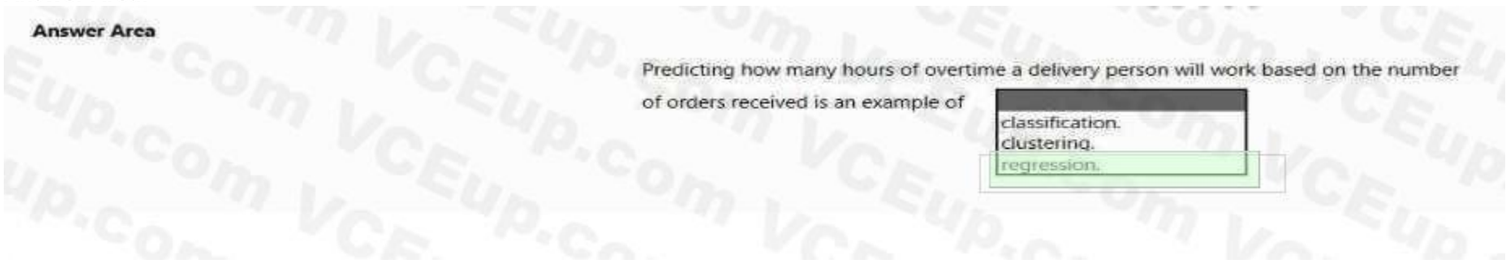
Section:
Explanation:

QUESTION 6
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:



Section:
Explanation:

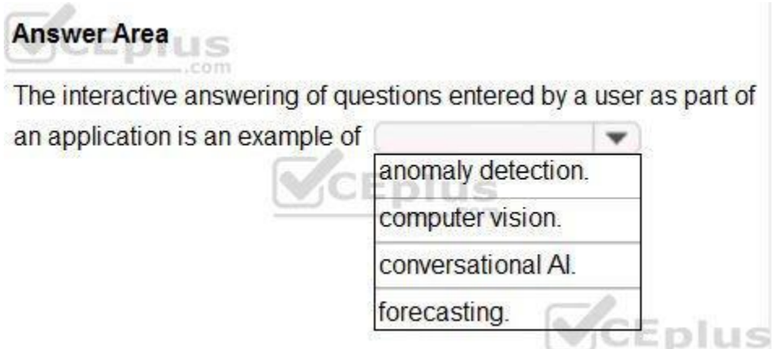
QUESTION 7
You have an Azure Machine Learning pipeline that contains a Split Data module. The Split Data module outputs to a Train Model module and a Score Model module. What is the function of the Split Data module?

A. selecting columns that must be included in the model
B. creating training and validation datasets
C. diverting records that have missing data
D. scaling numeric variables so that they are within a consistent numeric range

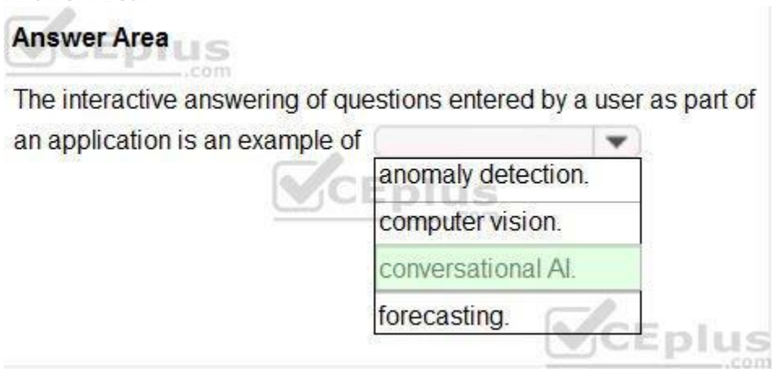
Correct Answer: A
Section:

QUESTION 8
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



Answer Area:



Section:
Explanation:
With Microsoft's Conversational AI tools developers can build, connect, deploy, and manage intelligent bots that naturally interact with their users on a website, app, Cortana, Microsoft Teams, Skype, Facebook Messenger, Slack, and more.
Reference:
https://azure.microsoft.com/en-in/blog/microsoft-conversational-ai-tools-enable-developers-to-build-connect-and-manage-intelligent-bots

QUESTION 9
HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can use QnA Maker to query an Azure SQL database.	○	○
You should use QnA Maker when you want a knowledge base to provide the same answer to different users who submit similar questions.	○	○
The QnA Maker service can determine the intent of a user utterance.	○	○

Answer Area:

Answer Area

Statements	Yes	No
You can use QnA Maker to query an Azure SQL database.	○	○
You should use QnA Maker when you want a knowledge base to provide the same answer to different users who submit similar questions.	○	○
The QnA Maker service can determine the intent of a user utterance.	○	○

Section:
Explanation:
Reference:
https://docs.microsoft.com/en-gb/azure/cognitive-services/qnamaker/concepts/data-sources-and-content
https://docs.microsoft.com/en-us/azure/cognitive-services/luis/choose-natural-language-processing-service

QUESTION 10
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can communicate with a bot by using email.	○	○
You can communicate with a bot by using Microsoft Teams.	○	○
You can communicate with a bot by using a webchat interface.	○	○

Answer Area:

Answer Area

Statements	Yes	No
You can communicate with a bot by using email.	○	○
You can communicate with a bot by using Microsoft Teams.	○	○
You can communicate with a bot by using a webchat interface.	○	○

Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/bot-service/bot-service-manage-channels?view=azure-bot-service-4.0

QUESTION 11
What are three Microsoft guiding principles for responsible AI? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. knowledgeability
B. decisiveness
C. inclusiveness
D. fairness
E. opinionatedness
F. reliability and safety

Correct Answer: C, D, F
Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

QUESTION 12
You run a charity event that involves posting photos of people wearing sunglasses on Twitter.
You need to ensure that you only retweet photos that meet the following requirements:
Include one or more faces.
Contain at least one person wearing sunglasses.
What should you use to analyze the images?

A. the Verify operation in the Face service
B. the Detect operation in the Face service
C. the Describe Image operation in the Computer Vision service
D. the Analyze Image operation in the Computer Vision service

Correct Answer: B
Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/azure/cognitive-services/face/overview

QUESTION 13
Which metric can you use to evaluate a classification model?

A. true positive rate
B. mean absolute error (MAE)
C. coefficient of determination (R2)
D. root mean squared error (RMSE)

Correct Answer: A
Section:
Explanation:
What does a good model look like?
An ROC curve that approaches the top left corner with 100% true positive rate and 0% false positive rate will be the best model. A random model would display as a flat line from the bottom left to the top right corner. Worse than random would dip below the y=x line.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-understand-automated-ml#classification

QUESTION 14
Which two components can you drag onto a canvas in Azure Machine Learning designer? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. dataset
B. compute
C. pipeline
D. module

Correct Answer: A, D

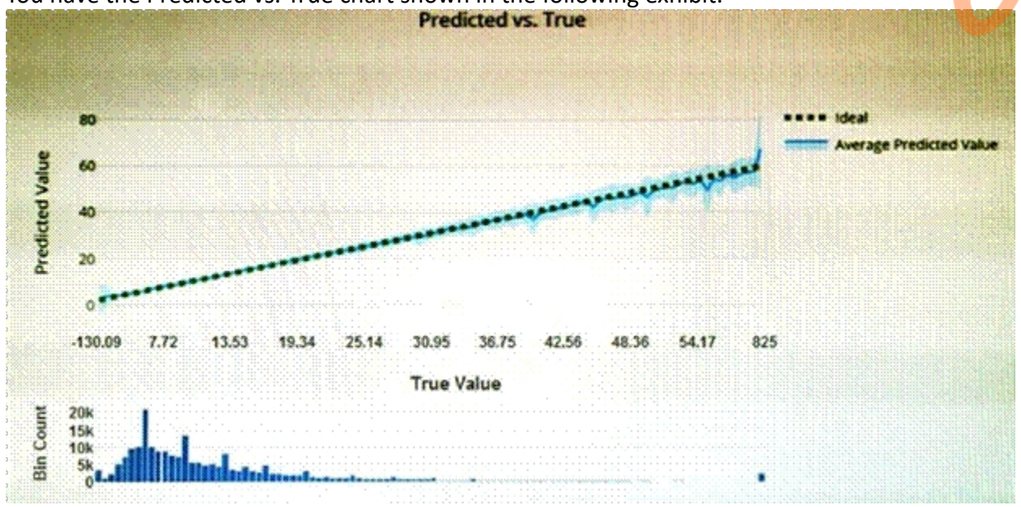
Section:
Explanation:
You can drag-and-drop datasets and modules onto the canvas.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/concept-designer

QUESTION 15
You need to create a training dataset and validation dataset from an existing dataset.
Which module in the Azure Machine Learning designer should you use?

A. Select Columns in Dataset
B. Add Rows
C. Split Data
D. Join Data

Correct Answer: C
Section:
Explanation:
A common way of evaluating a model is to divide the data into a training and test set by using Split Data, and then validate the model on the training data. Use the Split Data module to divide a dataset into two distinct sets.
The studio currently supports training/validation data splits
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-configure-cross-validation-data-splits2

QUESTION 16
You have the Predicted vs. True chart shown in the following exhibit.



Which type of model is the chart used to evaluate?

A. classification
B. regression
C. clustering

Correct Answer: B
Section:

Explanation:
What is a Predicted vs. True chart?
Predicted vs. True shows the relationship between a predicted value and its correlating true value for a regression problem. This graph can be used to measure performance of a model as the closer to the y=x line the predicted values are, the better the accuracy of a predictive model.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-understand-automated-m

QUESTION 17
Which type of machine learning should you use to predict the number of gift cards that will be sold next month?

A. classification
B. regression
C. clustering

Correct Answer: B
Section:
Explanation:
In the most basic sense, regression refers to prediction of a numeric target.
Linear regression attempts to establish a linear relationship between one or more independent variables and a numeric outcome, or dependent variable.
You use this module to define a linear regression method, and then train a model using a labeled dataset. The trained model can then be used to make predictions.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/studio-module-reference/linear-regression

QUESTION 18
You have a dataset that contains information about taxi journeys that occurred during a given period. You need to train a model to predict the fare of a taxi journey.
What should you use as a feature?

A. the number of taxi journeys in the dataset
B. the trip distance of individual taxi journeys
C. the fare of individual taxi journeys
D. the trip ID of individual taxi journeys

Correct Answer: B
Section:
Explanation:
The label is the column you want to predict. The identified Featuresare the inputs you give the model to predict the Label. Example:
The provided data set contains the following columns:
vendor_id: The ID of the taxi vendor is a feature. rate_code: The rate type of the taxi trip is a feature. passenger_count: The number of passengers on the trip is a feature. trip_time_in_secs: The amount of time the trip took. You want to predict the fare of the trip before the trip is completed. At that moment, you don't know how long the trip would take. Thus, the trip time is not a feature and you'll exclude this column from the model.
trip_distance: The distance of the trip is a feature.
payment_type: The payment method (cash or credit card) is a feature. fare_amount: The total taxi fare paid is the label.
Reference:
https://docs.microsoft.com/en-us/dotnet/machine-learning/tutorials/predict-prices

QUESTION 19
You need to predict the sea level in meters for the next 10 years.
Which type of machine learning should you use?

A. classification

B. regression
C. clustering

Correct Answer: C
Section:

QUESTION 20
Which service should you use to extract text, key/value pairs, and table data automatically from scanned documents?

A. Form Recognizer
B. Text Analytics
C. Language Understanding
D. Custom Vision

Correct Answer: A
Section:
Explanation:
Accelerate your business processes by automating information extraction. Form Recognizer applies advanced machine learning to accurately extract text, key/value pairs, and tables from documents. With just a few samples, Form Recognizer tailors its understanding to your documents, both on-premises and in the cloud. Turn forms into usable data at a fraction of the time and cost, so you can focus more time acting on the information rather than compiling it.
Reference:
https://azure.microsoft.com/en-us/services/cognitive-services/form-recognizer/

QUESTION 21
You use Azure Machine Learning designer to publish an inference pipeline.
Which two parameters should you use to access the web service? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

A. the model name
B. the training endpoint
C. the authentication key
D. the REST endpoint

Correct Answer: C, D
Section:
Explanation:
You can consume a published pipeline in the Published pipelines page. Select a published pipeline and find the REST endpoint of it.
To consume the pipeline, you need:
The REST endpoint for your service
The Primary Key for your service
Reference:
https://docs.microsoft.com/en-in/learn/modules/create-regression-model-azure-machine-learning-designer/deploy-service

QUESTION 22
A medical research project uses a large anonymized dataset of brain scan images that are categorized into predefined brain haemorrhage types. You need to use machine learning to support early detection of the different brain haemorrhage types in the images before the images are reviewed by a person. This is an example of which type of machine learning?

A. clustering
B. regression

C. classification

Correct Answer: C
Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/learn/modules/create-classification-model-azure-machine-learning-designer/introduction

QUESTION 23
When training a model, why should you randomly split the rows into separate subsets?

A. to train the model twice to attain better accuracy
B. to train multiple models simultaneously to attain better performance
C. to test the model by using data that was not used to train the model

Correct Answer: C
Section:

QUESTION 24
You are evaluating whether to use a basic workspace or an enterprise workspace in Azure Machine Learning. What are two tasks that require an enterprise workspace? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Use a graphical user interface (GUI) to run automated machine learning experiments.
B. Create a compute instance to use as a workstation.
C. Use a graphical user interface (GUI) to define and run machine learning experiments from Azure Machine Learning designer.
D. Create a dataset from a comma-separated value (CSV) file.

Correct Answer: A, C
Section:
Explanation:
Note: Enterprise workspaces are no longer available as of September 2020. The basic workspace now has all the functionality of the enterprise workspace.
Reference: https://www.azure.cn/en-us/pricing/details/machine-learning/ https://docs.microsoft.com/en-us/azure/machine-learning/concept-workspace

QUESTION 25
You need to predict the income range of a given customer by using the following dataset.

First Name	Last Name	Age	Education Level	Income Range
Orlando	Gee	45	University	25,000-50,000
Keith	Harris	36	High school	25,000-50,000
Donna	Carreras	52	University	50,000-75,000
Janet	Gates	21	University	75,000-100,000
Lucy	Harrington	68	High school	50,000-75,000

Which two fields should you use as features? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Education Level
B. Last Name
C. Age
D. Income Range
E. First Name

Correct Answer: A, C
Section:
Explanation:
First Name, Last Name, Age and Education Level are features. Income range is a label (what you want to predict). First Name and Last Name are irrelevant in that they have no bearing on income. Age and Education level are the features you should use.

QUESTION 26
You need to develop a mobile app for employees to scan and store their expenses while travelling.
Which type of computer vision should you use?

A. semantic segmentation
B. image classification
C. object detection
D. optical character recognition (OCR)

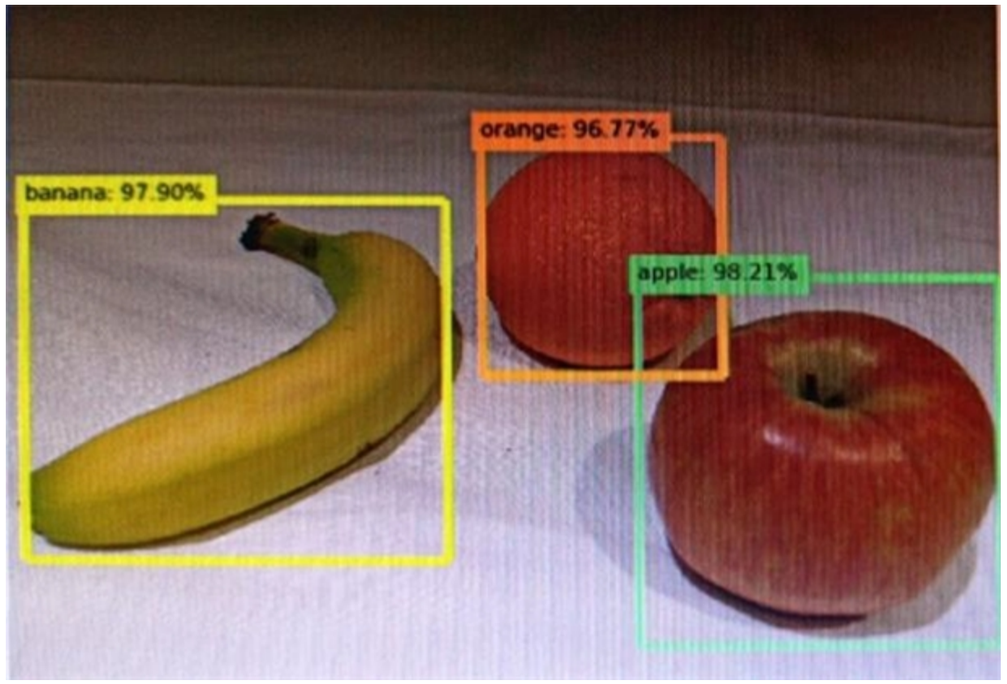
Correct Answer: D
Section:
Explanation:
Azure's Computer Vision API includes Optical Character Recognition (OCR) capabilities that extract printed or handwritten text from images. You can extract text from images, such as photos of license plates or containers with serial numbers, as well as from documents - invoices, bills, financial reports, articles, and more.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-recognizing-text

QUESTION 27
You need to determine the location of cars in an image so that you can estimate the distance between the cars. Which type of computer vision should you use?

A. optical character recognition (OCR)
B. object detection
C. image classification
D. face detection

Correct Answer: B
Section:
Explanation:
Object detection is similar to tagging, but the API returns the bounding box coordinates (in pixels) for each object found. For example, if an image contains a dog, cat and person, the Detect operation will list those objects together with their coordinates in the image. You can use this functionality to process the relationships between the objects in an image. It also lets you determine whether there are multiple instances of the same tag in an image. The Detect API applies tags based on the objects or living things identified in the image. There is currently no formal relationship between the tagging taxonomy and the object detection taxonomy. At a conceptual level, the Detect API only finds objects and living things, while the Tag API can also include contextual terms like "indoor", which can't be localized with bounding boxes.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-object-detection

QUESTION 28
You send an image to a Computer Vision API and receive back the annotated image shown in the exhibit.



Which type of computer vision was used?

A. object detection
B. face detection
C. optical character recognition (OCR)
D. image classification

Correct Answer: A
Section:
Explanation:
Object detection is similar to tagging, but the API returns the bounding box coordinates (in pixels) for each object found. For example, if an image contains a dog, cat and person, the Detect operation will list those objects together with their coordinates in the image. You can use this functionality to process the relationships between the objects in an image. It also lets you determine whether there are multiple instances of the same tag in an image. The Detect API applies tags based on the objects or living things identified in the image. There is currently no formal relationship between the tagging taxonomy and the object detection taxonomy. At a conceptual level, the Detect API only finds objects and living things, while the Tag API can also include contextual terms like "indoor", which can't be localized with bounding boxes.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-object-detection

QUESTION 29
What are two tasks that can be performed by using the Computer Vision service? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. Train a custom image classification model.
B. Detect faces in an image.
C. Recognize handwritten text.
D. Translate the text in an image between languages.

Correct Answer: B, C
Section:

Explanation:
B: Azure's Computer Vision service provides developers with access to advanced algorithms that process images and return information based on the visual features you're interested in. For example, Computer Vision can determine whether an image contains adult content, find specific brands or objects, or find human faces.
C: Computer Vision includes Optical Character Recognition (OCR) capabilities. You can use the new Read API to extract printed and handwritten text from images and documents.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/home

QUESTION 30
What is a use case for classification?

A. predicting how many cups of coffee a person will drink based on how many hours the person slept the previous night.
B. analyzing the contents of images and grouping images that have similar colors
C. predicting whether someone uses a bicycle to travel to work based on the distance from home to work
D. predicting how many minutes it will take someone to run a race based on past race times

Correct Answer: D
Section:

QUESTION 31
What are two tasks that can be performed by using computer vision? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. Predict stock prices.
B. Detect brands in an image.
C. Detect the color scheme in an image
D. Translate text between languages.
E. Extract key phrases.

Correct Answer: B, C
Section:
Explanation:
B: Identify commercial brands in images or videos from a database of thousands of global logos. You can use this feature, for example, to discover which brands are most popular on social media or most prevalent in media product placement.
C: Analyze color usage within an image. Computer Vision can determine whether an image is black & white or color and, for color images, identify the dominant and accent colors.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview

QUESTION 32
Your company wants to build a recycling machine for bottles. The recycling machine must automatically identify bottles of the correct shape and reject all other items. Which type of AI workload should the company use?

A. anomaly detection
B. conversational AI
C. computer vision
D. natural language processing

Correct Answer: C
Section:
Explanation:
Azure's Computer Vision service gives you access to advanced algorithms that process images and return information based on the visual features you're interested in. For example, Computer Vision can determine whether an

image contains adult content, find specific brands or objects, or find human faces.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview

QUESTION 33
In which two scenarios can you use the Form Recognizer service? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. Extract the invoice number from an invoice.
B. Translate a form from French to English.
C. Find image of product in a catalog.
D. Identify the retailer from a receipt.

Correct Answer: A, D
Section:
Explanation:
Reference:
https://azure.microsoft.com/en-gb/services/cognitive-services/form-recognizer/#features

QUESTION 34
Your website has a chatbot to assist customers.
You need to detect when a customer is upset based on what the customer types in the chatbot.
Which type of AI workload should you use?

A. anomaly detection
B. semantic segmentation
C. regression
D. natural language processing

Correct Answer: D
Section:
Explanation:
Natural language processing (NLP) is used for tasks such as sentiment analysis, topic detection, language detection, key phrase extraction, and document categorization.
Sentiment Analysis is the process of determining whether a piece of writing is positive, negative or neutral.
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 35
Which AI service can you use to interpret the meaning of a user input such as "Call me back later?"

A. Translator Text
B. Text Analytics
C. Speech
D. Language Understanding (LUIS)

Correct Answer: D
Section:
Explanation:
Language Understanding (LUIS) is a cloud-based AI service, that applies custom machine-learning intelligence to a user's conversational, natural language text to predict overall meaning, and pull out relevant, detailed

information.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/luis/what-is-luis

QUESTION 36
You are developing a Chatbot solution in Azure.
Which service should you use to determine a user's intent?

A. Translator Text
B. Azure Cognitive Search
C. Speech
D. Language Understanding (LUIS)

Correct Answer: B
Section:
Explanation:

QUESTION 37
You need to make the press releases of your company available in a range of languages.
Which service should you use?

A. Translator Text
B. Text Analytics
C. Speech
D. Language Understanding (LUIS)

Correct Answer: A
Section:
Explanation:
Translator is a cloud-based machine translation service you can use to translate text in near real-time through a simple REST API call. The service uses modern neural machine translation technology and offers statistical machine translation technology. Custom Translator is an extension of Translator, which allows you to build neural translation systems.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/translator/

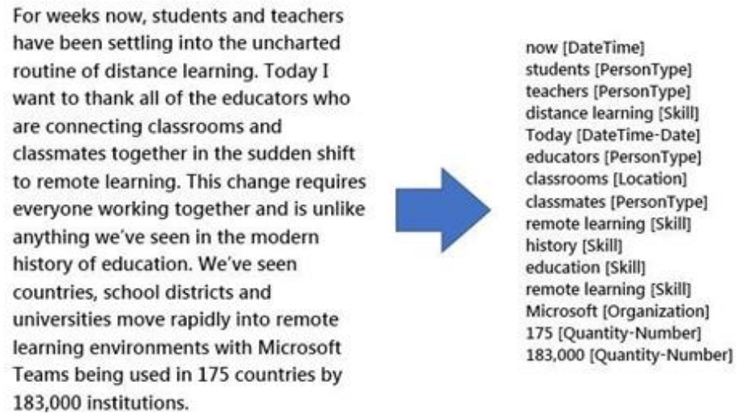
QUESTION 38
You are developing a natural language processing solution in Azure. The solution will analyze customer reviews and determine how positive or negative each review is. This is an example of which type of natural language processing workload?

A. language detection
B. sentiment analysis
C. key phrase extraction
D. entity recognition

Correct Answer: B
Section:
Explanation:
Sentiment Analysis is the process of determining whether a piece of writing is positive, negative or neutral.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 39
You use natural language processing to process text from a Microsoft news story.
You receive the output shown in the following exhibit.



Which type of natural languages processing was performed?

A. entity recognition
B. key phrase extraction
C. sentiment analysis
D. translation

Correct Answer: A
Section:
Explanation:
Named Entity Recognition (NER) is the ability to identify different entities in text and categorize them into pre-defined classes or types such as: person, location, event, product, and organization.
In this question, the square brackets indicate the entities such as DateTime, PersonType, Skill.
Reference:
https://docs.microsoft.com/en-in/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-entity-linking?tabs=version-3-preview

QUESTION 40
You are developing a solution that uses the Text Analytics service.
You need to identify the main talking points in a collection of documents.
Which type of natural language processing should you use?

A. entity recognition
B. key phrase extraction
C. sentiment analysis
D. language detection

Correct Answer: B
Section:
Explanation:
Broad entity extraction: Identify important concepts in text, including key
Key phrase extraction/ Broad entity extraction: Identify important concepts in text, including key phrases and named entities such as people, places, and organizations.

Reference: https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 41
In which two scenarios can you use speech recognition? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. an in-car system that reads text messages aloud
B. providing closed captions for recorded or live videos
C. creating an automated public address system for a train station
D. creating a transcript of a telephone call or meeting

Correct Answer: B, D
Section:
Explanation:
Reference: https://azure.microsoft.com/en-gb/services/cognitive-services/speech-to-text/#features

QUESTION 42
You need to build an app that will read recipe instructions aloud to support users who have reduced vision. Which version service should you use?

A. Text Analytics
B. Translator Text
C. Speech
D. Language Understanding (LUIS)

Correct Answer: C
Section:
Explanation:
Reference:
https://azure.microsoft.com/en-us/services/cognitive-services/text-to-speech/#features

QUESTION 43
Which two scenarios are examples of a conversational AI workload? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. a telephone answering service that has a pre-recorder message
B. a chatbot that provides users with the ability to find answers on a website by themselves
C. telephone voice menus to reduce the load on human resources
D. a service that creates frequently asked questions (FAQ) documents by crawling public websites

Correct Answer: B, C
Section:
Explanation:
B: A bot is an automated software program designed to perform a particular task. Think of it as a robot without a body. C: Automated customer interaction is essential to a business of any size. In fact, 61% of consumers prefer to communicate via speech, and most of them prefer self-service. Because customer satisfaction is a priority for all businesses, selfservice is a critical facet of any customer-facing communications strategy.
Incorrect Answers:
D: Early bots were comparatively simple, handling repetitive and voluminous tasks with relatively straightforward algorithmic logic. An example would be web crawlers used by search engines to automatically explore and catalog web content.
Reference: https://docs.microsoft.com/en-us/azure/architecture/data-guide/big-data/ai-overview https://docs.microsoft.com/en-us/azure/architecture/solution-ideas/articles/interactive-voice-response-bot

QUESTION 44

You need to provide content for a business chatbot that will help answer simple user queries.
What are three ways to create question-and answer text by using QnA Maker? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. Generate the questions and answers from an existing webpage.
B. Use automated machine learning to train a model based on a file that contains the questions.
C. Manually enter the questions and answers.
D. Connect the bot to the Cortana channel and ask questions by using Cortana.
E. Import chit-chat content from a predefined data source.

Correct Answer: A, C, E
Section:
Explanation:
Automatic extraction
Extract question-answer pairs from semi-structured content, including FAQ pages, support websites, excel files, SharePoint documents, product manuals and policies.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/content-types

QUESTION 45
You have a frequently asked questions (FAQ) PDF file.
You need to create a conversational support system based on the FAQ.
Which service should you use?

A. QnA Maker
B. Text Analytics
C. Computer Vision
D. Language Understanding (LUIS)

Correct Answer: A
Section:
Explanation:
QnA Maker is a cloud-based API service that lets you create a conversational question-and-answer layer over your existing data. Use it to build a knowledge base by extracting questions and answers from your semi-structured content, including FAQs, manuals, and documents.
Reference:
https://azure.microsoft.com/en-us/services/cognitive-services/qna-maker/

QUESTION 46
You need to reduce the load on telephone operators by implementing a chatbot to answer simple questions with predefined answers. Which two AI service should you use to achieve the goal? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

A. Text Analytics
B. QnA Maker
C. Azure Bot Service
D. Translator Text

Correct Answer: B, C
Section:
Explanation:
Bots are a popular way to provide support through multiple communication channels. You can use the QnA Maker service and Azure Bot Service to create a bot that answers user questions.

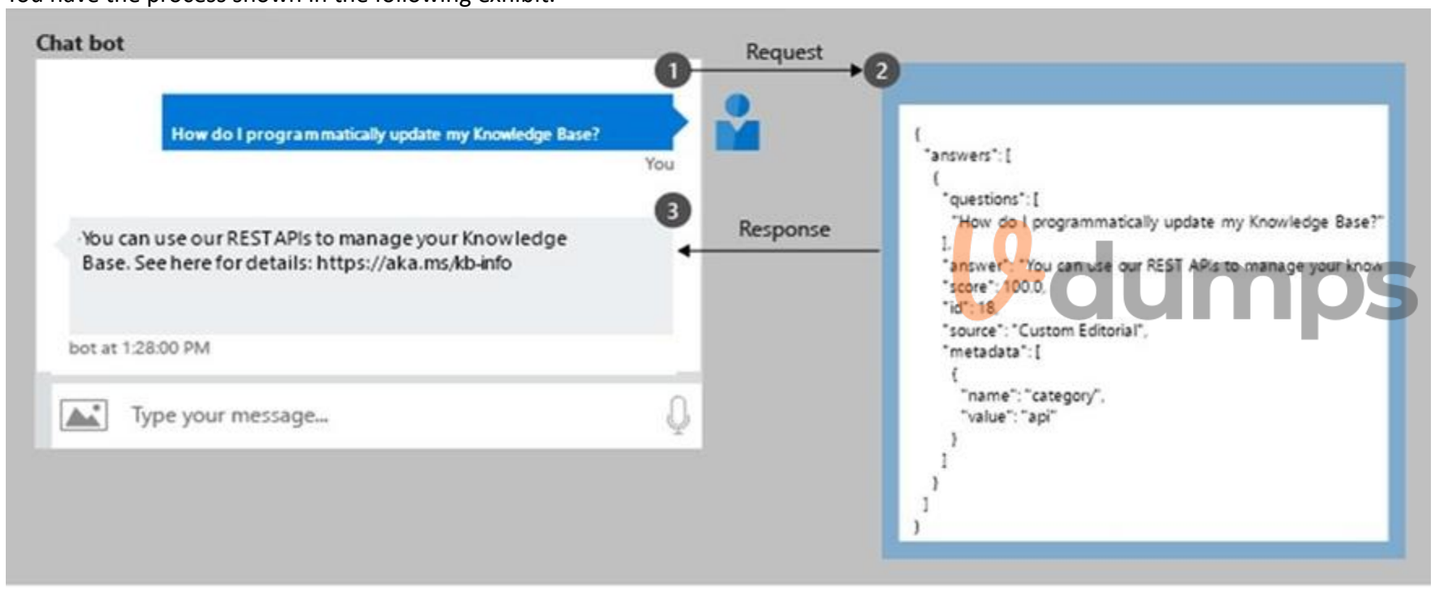
Reference:
https://docs.microsoft.com/en-us/learn/modules/build-faq-chatbot-qna-maker-azure-bot-service/

QUESTION 47
Which two scenarios are examples of a conversational AI workload? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. a smart device in the home that responds to questions such as "What will the weather be like today?"
B. a website that uses a knowledge base to interactively respond to users' questions
C. assembly line machinery that autonomously inserts headlamps into cars
D. monitoring the temperature of machinery to turn on a fan when the temperature reaches a specific threshold

Correct Answer: A, B
Section:

QUESTION 48
You have the process shown in the following exhibit.



Which type AI solution is shown in the diagram?

A. a sentiment analysis solution
B. a chatbot
C. a machine learning model
D. a computer vision application

Correct Answer: B
Section:

QUESTION 49
You need to develop a web-based AI solution for a customer support system. Users must be able to interact with a web app that will guide them to the best resource or answer. Which service should you use?

A. Custom Vision

B. QnA Maker
C. Translator Text
D. Face

Correct Answer: B
Section:
Explanation:
QnA Maker is a cloud-based API service that lets you create a conversational question-and-answer layer over your existing data. Use it to build a knowledge base by extracting questions and answers from your semi-structured content, including FAQs, manuals, and documents. Answer users' questions with the best answers from the QnAs in your knowledge baseâ€”automatically. Your knowledge base gets smarter, too, as it continually learns from user behavior. Incorrect Answers:
A: Azure Custom Vision is a cognitive service that lets you build, deploy, and improve your own image classifiers. An image classifier is an AI service that applies labels (which represent classes) to images, according to their visual characteristics. Unlike the Computer Vision service, Custom Vision allows you to specify the labels to apply. D: Azure Cognitive Services Face Detection API: At a minimum, each detected face corresponds to a faceRectangle field in the response. This set of pixel coordinates for the left, top, width, and height mark the located face. Using these coordinates, you can get the location of the face and its size. In the API response, faces are listed in size order from largest to smallest.
Reference:
https://azure.microsoft.com/en-us/services/cognitive-services/qna-maker/

QUESTION 50
Which AI service should you use to create a bot from a frequently asked questions (FAQ) document?

A. QnA Maker
B. Language Understanding (LUIS)
C. Text Analytics
D. Speech

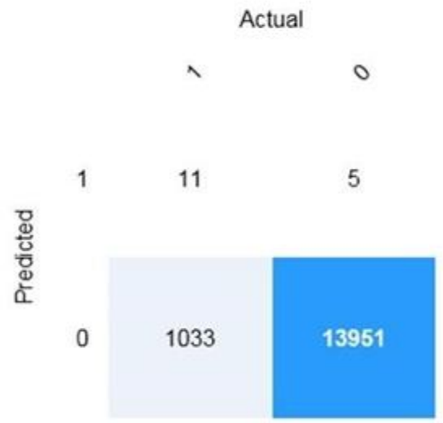
Correct Answer: A
Section:

QUESTION 51
Which scenario is an example of a webchat bot?

A. Determine whether reviews entered on a website for a concert are positive or negative, and then add a thumbs up or thumbs down emoji to the reviews.
B. Translate into English questions entered by customers at a kiosk so that the appropriate person can call the customers back.
C. Accept questions through email, and then route the email messages to the correct person based on the content of the message.
D. From a website interface, answer common questions about scheduled events and ticket purchases for a music festival.

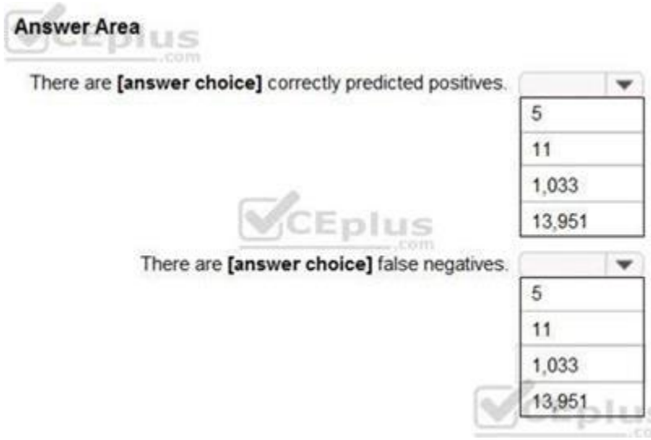
Correct Answer: D
Section:

QUESTION 52
HOTSPOT
You are developing a model to predict events by using classification.
You have a confusion matrix for the model scored on test data as shown in the following exhibit.

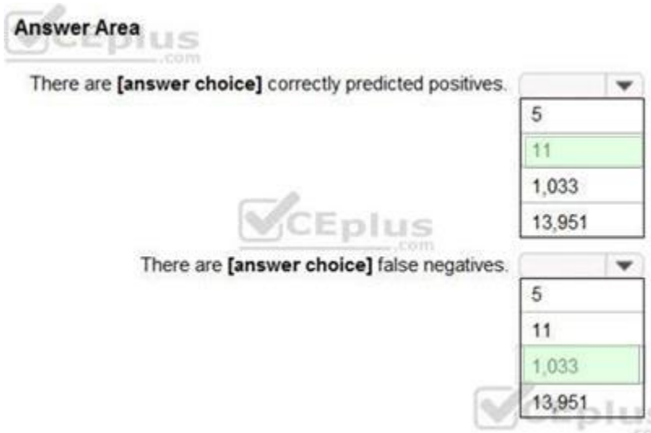


Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area:



Section:
Explanation:
Box 1: 11

	Predicted	
	Positive	Negative
Actual True	TP	FN
Actual False	FP	TN

TP = True Positive.
The class labels in the training set can take on only two possible values, which we usually refer to as positive or negative. The positive and negative instances that a classifier predicts correctly are called true positives (TP) and true negatives (TN), respectively. Similarly, the incorrectly classified instances are called false positives (FP) and false negatives (FN).
Box 2: 1,033
FN = False Negative
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/studio/evaluate-model-performance

QUESTION 53
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Forecasting housing prices based on historical data is an example of anomaly detection.	○	○
Identifying suspicious sign-ins by looking for deviations from usual patterns is an example of anomaly detection.	○	○
Predicting whether a patient will develop diabetes based on the patient's medical history is an example of anomaly detection.	○	○

Answer Area:

Answer Area

Statements	Yes	No
Forecasting housing prices based on historical data is an example of anomaly detection.	○	○
Identifying suspicious sign-ins by looking for deviations from usual patterns is an example of anomaly detection.	○	○
Predicting whether a patient will develop diabetes based on the patient's medical history is an example of anomaly detection.	○	○

Section:
Explanation:

QUESTION 54
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

The handling of unusual or missing values provided to an AI system is a consideration for the Microsoft [ ] principle for responsible AI.

- inclusiveness
- privacy and security
- reliability and safety
- transparency

Answer Area:

Answer Area

The handling of unusual or missing values provided to an AI system is a consideration for the Microsoft [ ] principle for responsible AI.

- inclusiveness
- privacy and security
- reliability and safety
- transparency

Section:
Explanation:

QUESTION 55
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Predicting how many hours of overtime a delivery person will work based on the number of order received is an example of [ ]

- classification.
- clustering.
- regression.

Answer Area:

Answer Area

Predicting how many hours of overtime a delivery person will work based on the number of order received is an example of [ ]

- classification.
- clustering.
- regression.

Section:

Explanation:

In the most basic sense, regression refers to prediction of a numeric target.

Linear regression attempts to establish a linear relationship between one or more independent variables and a numeric outcome, or dependent variable.

You use this module to define a linear regression method, and then train a model using a labeled dataset. The trained model can then be used to make predictions.

Incorrect Answers:

Classification is a machine learning method that uses data to determine the category, type, or class of an item or row of data. Clustering, in machine learning, is a method of grouping data points into similar clusters. It is also called segmentation.

Over the years, many clustering algorithms have been developed. Almost all clustering algorithms use the features of individual items to find similar items. For example, you might apply clustering to find similar people by demographics. You might use clustering with text analysis to group sentences with similar topics or sentiment.

Reference:

https://docs.microsoft.com/en-us/azure/machine-learning/algorithm-module-reference/linear-regression

https://docs.microsoft.com/en-us/azure/machine-learning/studio-module-reference/machine-learning-initialize-model-clustering

QUESTION 56

HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Azure Machine Learning designer provides a drag-and-drop visual canvas to build, test, and deploy machine learning models.	○	○
Azure Machine Learning designer enables you to save your progress as a pipeline draft.	○	○
Azure Machine Learning designer enables you to include custom JavaScript functions.	○	○

Answer Area:

Answer Area

Statements	Yes	No
Azure Machine Learning designer provides a drag-and-drop visual canvas to build, test, and deploy machine learning models.	○	○
Azure Machine Learning designer enables you to save your progress as a pipeline draft.	○	○
Azure Machine Learning designer enables you to include custom JavaScript functions.	○	○

Section:
Explanation:
Box 1: Yes
Azure Machine Learning designer lets you visually connect datasets and modules on an interactive canvas to create machine learning models. Box 2: Yes
With the designer you can connect the modules to create a pipeline draft.
As you edit a pipeline in the designer, your progress is saved as a pipeline draft.
Box 3: No
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/concept-designer

QUESTION 57
HOTSPOT
You have the following dataset.

Household Income	Postal Code	House Price Category
20,000	55555	Low
23,000	20541	Middle
80,000	87960	High

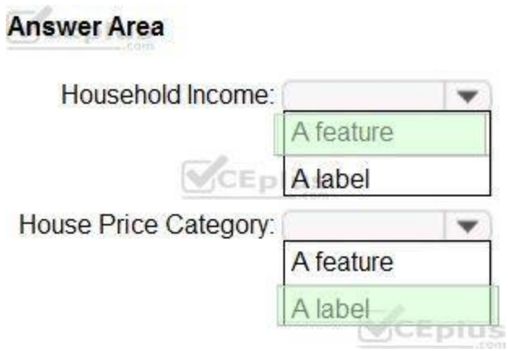
You plan to use the dataset to train a model that will predict the house price categories of houses.
What are Household Income and House Price Category? To answer, select the appropriate option in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Household Income: A feature / A label
House Price Category: A feature / A label

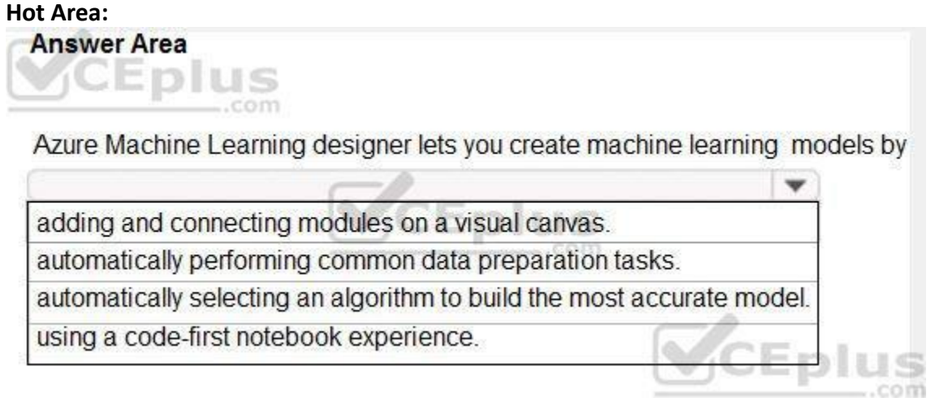
Answer Area:



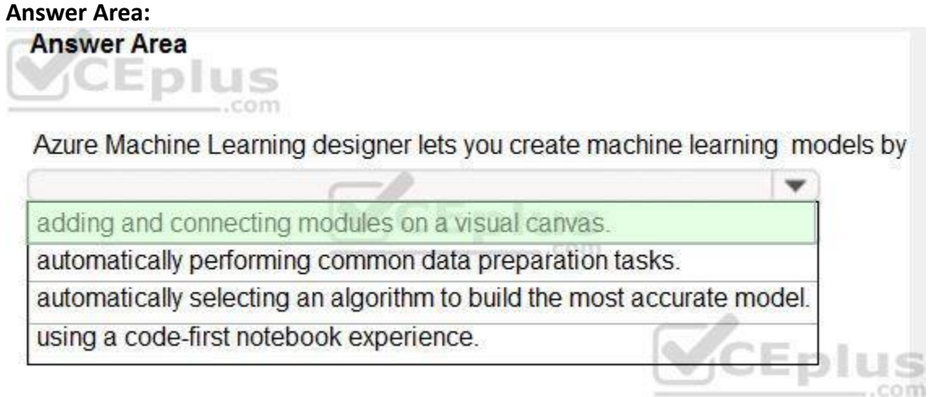
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/studio/interpret-model-results

QUESTION 58
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



Answer Area:



Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/concept-designer

QUESTION 59
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Automated machine learning provides you with the ability to include custom Python scripts in a training pipeline.	○	○
Automated machine learning implements machine learning solutions without the need for programming experience.	○	○
Automated machine learning provides you with the ability to visually connect datasets and modules on an interactive canvas.	○	○

Answer Area:

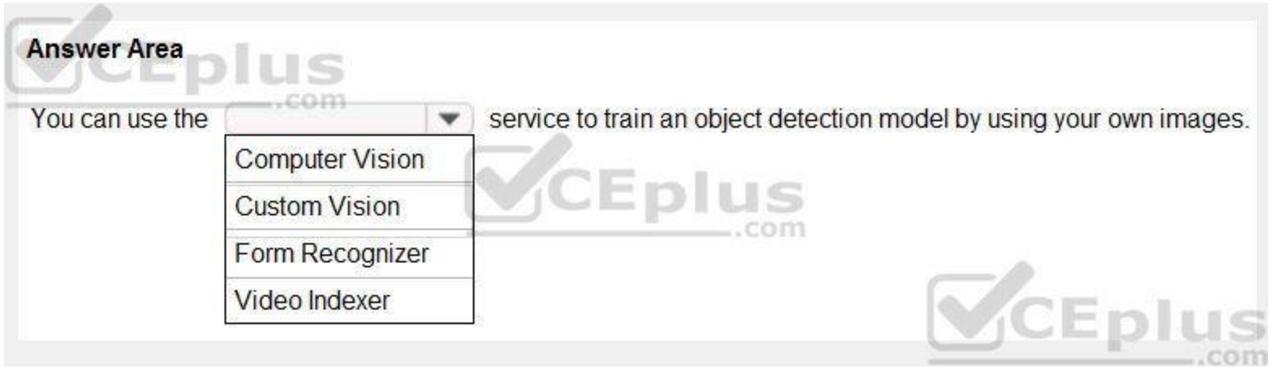
Answer Area

Statements	Yes	No
Automated machine learning provides you with the ability to include custom Python scripts in a training pipeline.	○	○
Automated machine learning implements machine learning solutions without the need for programming experience.	○	○
Automated machine learning provides you with the ability to visually connect datasets and modules on an interactive canvas.	○	○

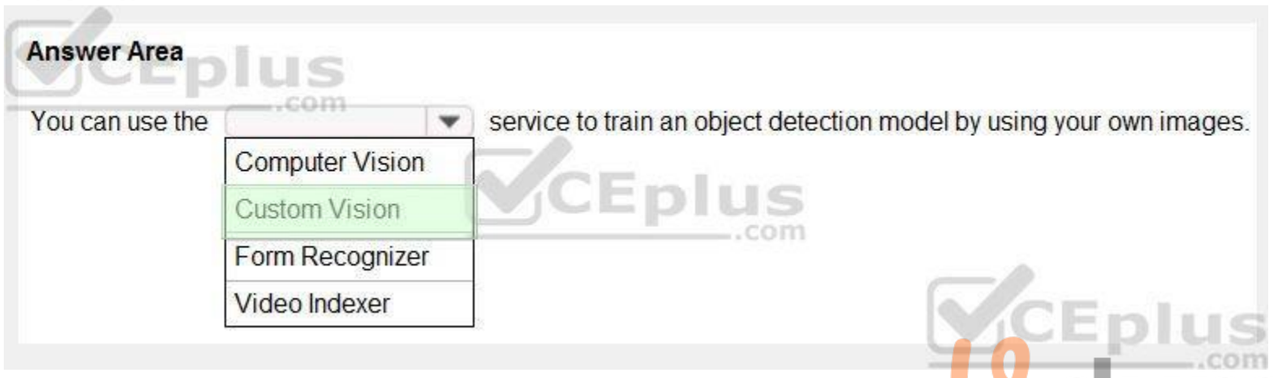
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-designer-python
https://docs.microsoft.com/en-us/azure/machine-learning/concept-automated-ml

QUESTION 60
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



Answer Area:



Section:
Explanation:
Azure Custom Vision is a cognitive service that lets you build, deploy, and improve your own image classifiers. An image classifier is an AI service that applies labels (which represent classes) to images, according to their visual characteristics. Unlike the Computer Vision service, Custom Vision allows you to specify the labels to apply.
Note: The Custom Vision service uses a machine learning algorithm to apply labels to images. You, the developer, must submit groups of images that feature and lack the characteristics in question. You label the images yourself at the time of submission. Then the algorithm trains to this data and calculates its own accuracy by testing itself on those same images. Once the algorithm is trained, you can test, retrain, and eventually use it to classify new images according to the needs of your app. You can also export the model itself for offline use.
Incorrect Answers:
Computer Vision:
Azure's Computer Vision service provides developers with access to advanced algorithms that process images and return information based on the visual features you're interested in. For example, Computer Vision can determine whether an image contains adult content, find specific brands or objects, or find human faces.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/home

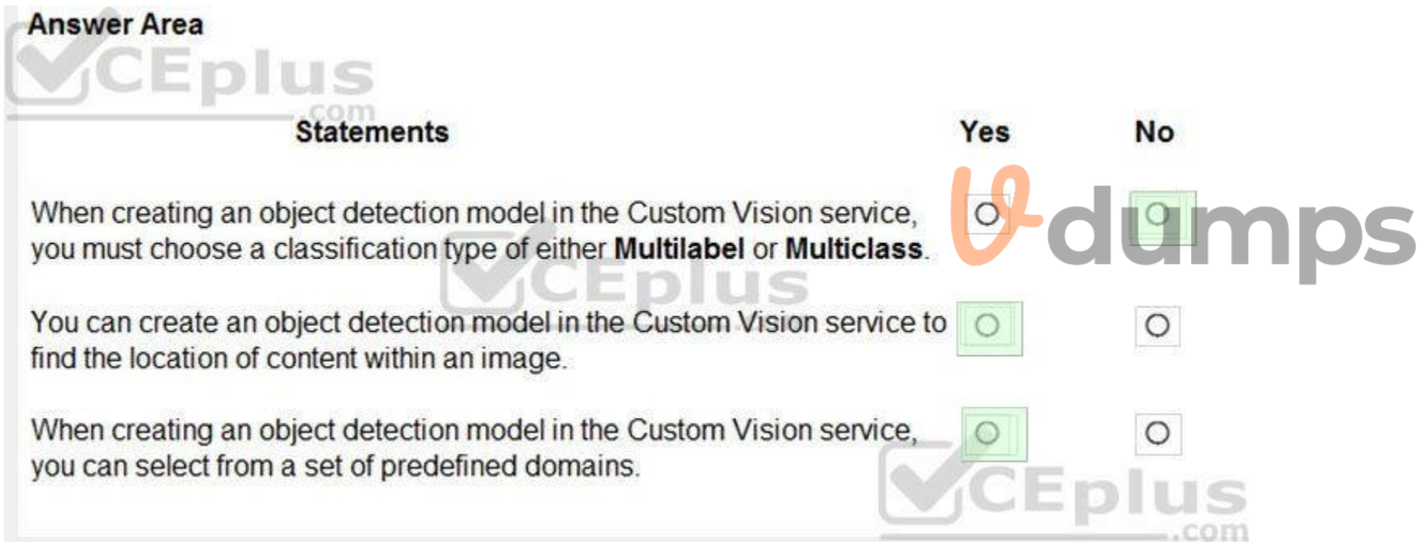
QUESTION 61
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
When creating an object detection model in the Custom Vision service, you must choose a classification type of either **Multilabel** or **Multiclass**.	○	○
You can create an object detection model in the Custom Vision service to find the location of content within an image.	○	○
When creating an object detection model in the Custom Vision service, you can select from a set of predefined domains.	○	○

Answer Area:



Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/get-started-build-detector

QUESTION 62
HOTSPOT
You have a database that contains a list of employees and their photos.
You are tagging new photos of the employees.
For each of the following statements select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Face service can be used to group all the employees who have similar facial characteristics.	○	○
The Face service will be more accurate if you provide more sample photos of each employee from different angles.	○	○
If an employee is wearing sunglasses, the Face service will always fail to recognize the employee.	○	○

Answer Area:

Answer Area

Statements	Yes	No
The Face service can be used to group all the employees who have similar facial characteristics.	○	○
The Face service will be more accurate if you provide more sample photos of each employee from different angles.	○	○
If an employee is wearing sunglasses, the Face service will always fail to recognize the employee.	○	○

Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/face/overview
https://docs.microsoft.com/en-us/azure/cognitive-services/face/concepts/face-detection

QUESTION 63
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Natural language processing can be used to

classify email messages as work-related or personal.
predict the number of future car rentals.
predict which website visitors will make a transaction.
stop a process in a factory when extremely high temperatures are registered.

Answer Area:

Answer Area

Natural language processing can be used to

classify email messages as work-related or personal.
predict the number of future car rentals.
predict which website visitors will make a transaction.
stop a process in a factory when extremely high temperatures are registered.

Section:
Explanation:
Natural language processing (NLP) is used for tasks such as sentiment analysis, topic detection, language detection, key phrase extraction, and document categorization.
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 64
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Text Analytics service can identify in which language text is written.	○	○
The Text Analytics service can detect handwritten signatures in a document.	○	○
The Text Analytics service can identify companies and organizations mentioned in a document.	○	○

Answer Area:

Answer Area

Statements	Yes	No
The Text Analytics service can identify in which language text is written.	○	○
The Text Analytics service can detect handwritten signatures in a document.	○	○
The Text Analytics service can identify companies and organizations mentioned in a document.	○	○

Section:
Explanation:
The Text Analytics API is a cloud-based service that provides advanced natural language processing over raw text, and includes four main functions: sentiment analysis, key phrase extraction, named entity recognition, and language detection.
Box 1: Yes
You can detect which language the input text is written in and report a single language code for every document submitted on the request in a wide range of languages, variants, dialects, and some regional/cultural languages. The language code is paired with a score indicating the strength of the score.
Box 2: No
Box 3: Yes
Named Entity Recognition: Identify and categorize entities in your text as people, places, organizations, date/time, quantities, percentages, currencies, and more. Well-known entities are also recognized and linked to more information on the web.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/overview

QUESTION 65
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Monitoring online service reviews for profanities is an example of natural language processing.	○	○
Identifying brand logos in an image is an example of natural languages processing.	○	○
Monitoring public news sites for negative mentions of a product is an example of natural language processing.	○	○

Answer Area:

Answer Area

Statements	Yes	No
Monitoring online service reviews for profanities is an example of natural language processing.	○	○
Identifying brand logos in an image is an example of natural languages processing.	○	○
Monitoring public news sites for negative mentions of a product is an example of natural language processing.	○	○

Section:
Explanation:
Box 1: Yes
Content Moderator is part of Microsoft Cognitive Services allowing businesses to use machine assisted moderation of text, images, and videos that augment human review.
The text moderation capability now includes a new machine-learning based text classification feature which uses a trained model to identify possible abusive, derogatory or discriminatory language such as slang, abbreviated words, offensive, and intentionally misspelled words for review.
Box 2: No
Azure's Computer Vision service gives you access to advanced algorithms that process images and return information based on the visual features you're interested in. For example, Computer Vision can determine whether an image contains adult content, find specific brands or objects, or find human faces.
Box 3: Yes
Natural language processing (NLP) is used for tasks such as sentiment analysis, topic detection, language detection, key phrase extraction, and document categorization.
Sentiment Analysis is the process of determining whether a piece of writing is positive, negative or neutral.
Reference:
https://azure.microsoft.com/es-es/blog/machine-assisted-text-classification-on-content-moderator-public-preview/
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 66
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

While presenting at a conference, your session is transcribed into subtitles for the audience. This is an example of [▼]

- sentiment analysis.
- speech recognition.
- speech synthesis.
- translation.

Answer Area:

Answer Area

While presenting at a conference, your session is transcribed into subtitles for the audience. This is an example of

- sentiment analysis.
- speech recognition.
- speech synthesis.
- translation.

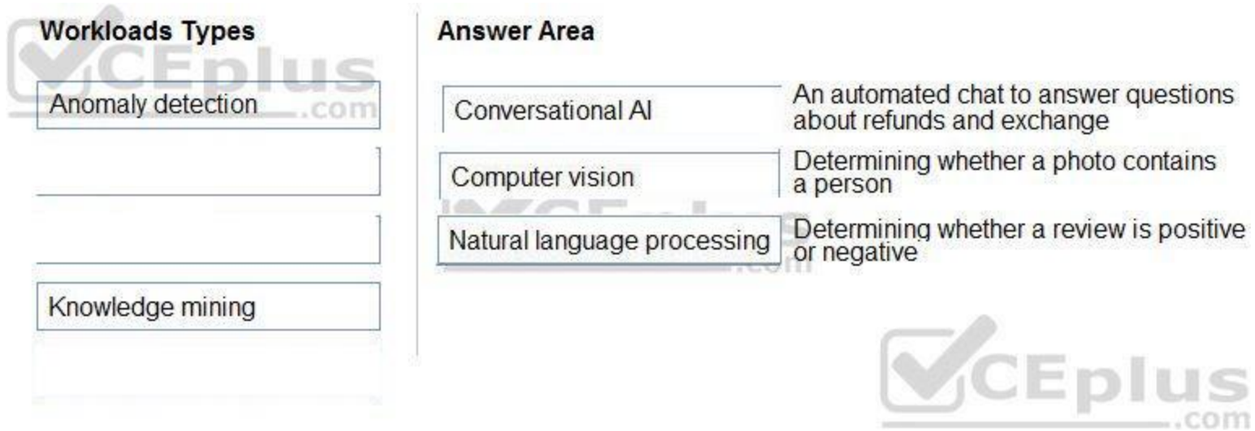
Section:
Explanation:
Reference:
https://azure.microsoft.com/en-gb/services/cognitive-services/speech-to-text/#features

QUESTION 67
DRAG DROP
Match the types of AI workloads to the appropriate scenarios.
To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:

Workloads Types	Answer Area	
Anomaly detection	Workload Type	An automated chat to answer questions about refunds and exchange
Computer vision	Workload Type	Determining whether a photo contains a person
Conversational AI	Workload Type	Determining whether a review is positive or negative
Knowledge mining		
Natural language processing		

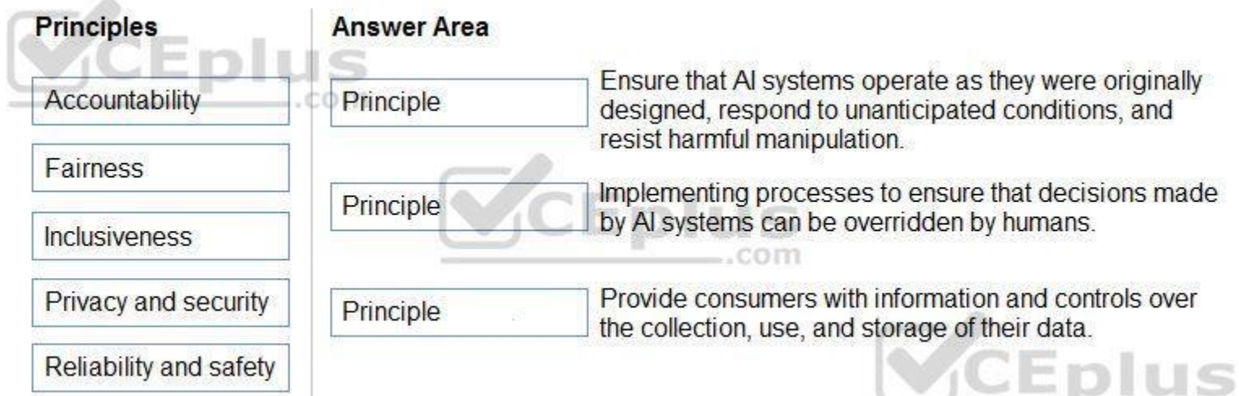
Correct Answer:



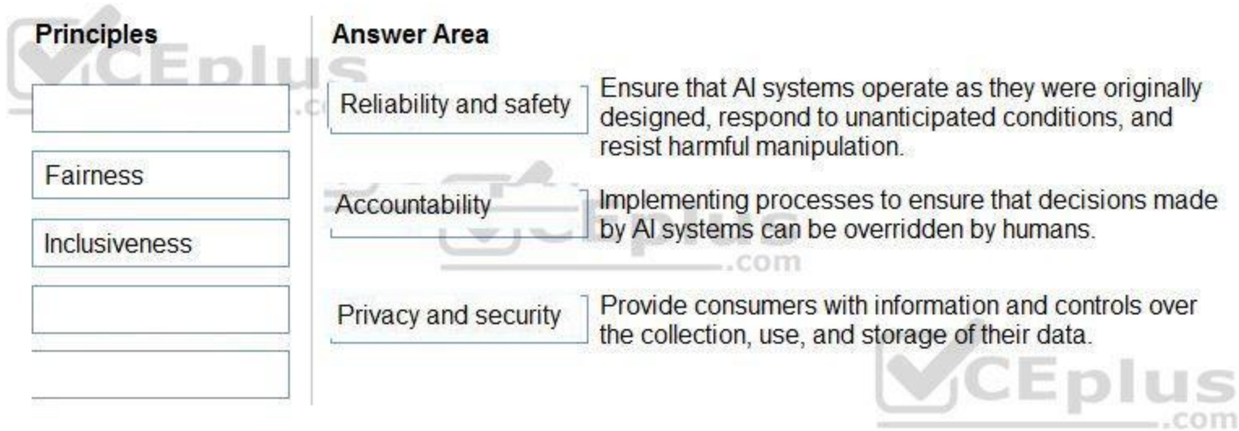
Section:
Explanation:
Box 3: Natural language processing
Natural language processing (NLP) is used for tasks such as sentiment analysis, topic detection, language detection, key phrase extraction, and document categorization.
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 68
DRAG DROP
Match the Microsoft guiding principles for responsible AI to the appropriate descriptions.
To answer, drag the appropriate principle from the column on the left to its description on the right. Each principle may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:



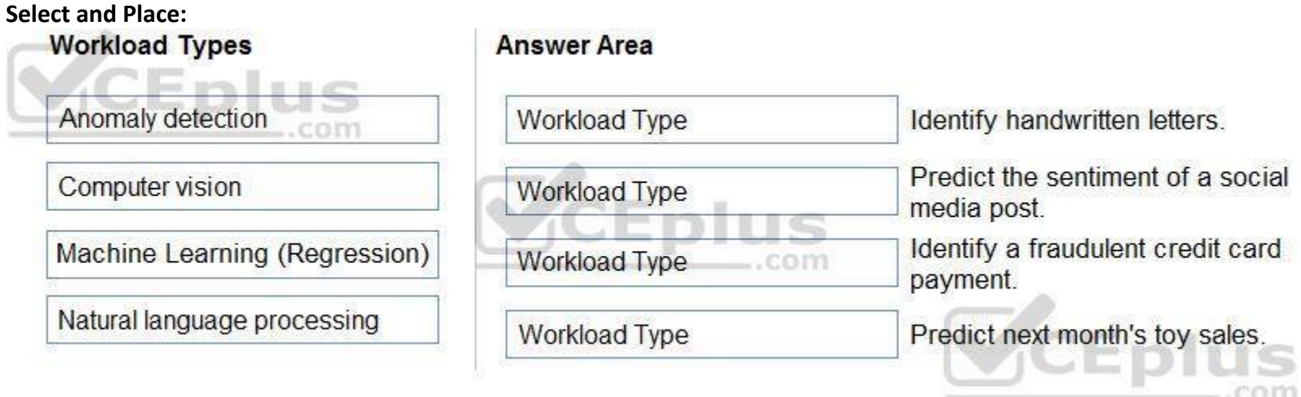
Correct Answer:



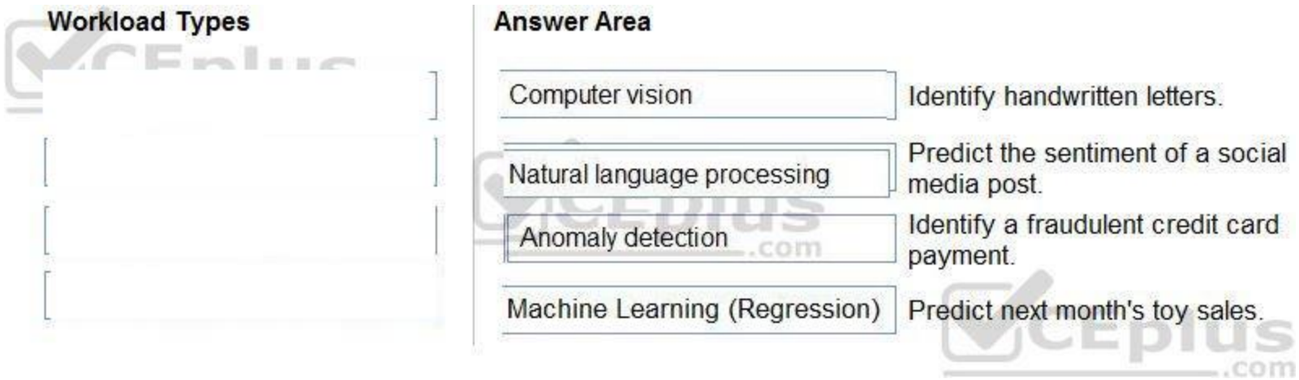
Section:
Explanation:
Box 1: Reliability and safety
To build trust, it's critical that AI systems operate reliably, safely, and consistently under normal circumstances and in unexpected conditions. These systems should be able to operate as they were originally designed, respond safely to unanticipated conditions, and resist harmful manipulation.
Box 2: Accountability
The people who design and deploy AI systems must be accountable for how their systems operate. Organizations should draw upon industry standards to develop accountability norms. These norms can ensure that AI systems are not the final authority on any decision that impacts people's lives and that humans maintain meaningful control over otherwise highly autonomous AI systems.
Box 3: Privacy and security
As AI becomes more prevalent, protecting privacy and securing important personal and business information is becoming more critical and complex. With AI, privacy and data security issues require especially close attention because access to data is essential for AI systems to make accurate and informed predictions and decisions about people. AI systems must comply with privacy laws that require transparency about the collection, use, and storage of data and mandate that consumers have appropriate controls to choose how their data is used
Reference:
https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

QUESTION 69
DRAG DROP
Match the types of AI workloads to the appropriate scenarios.
To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:



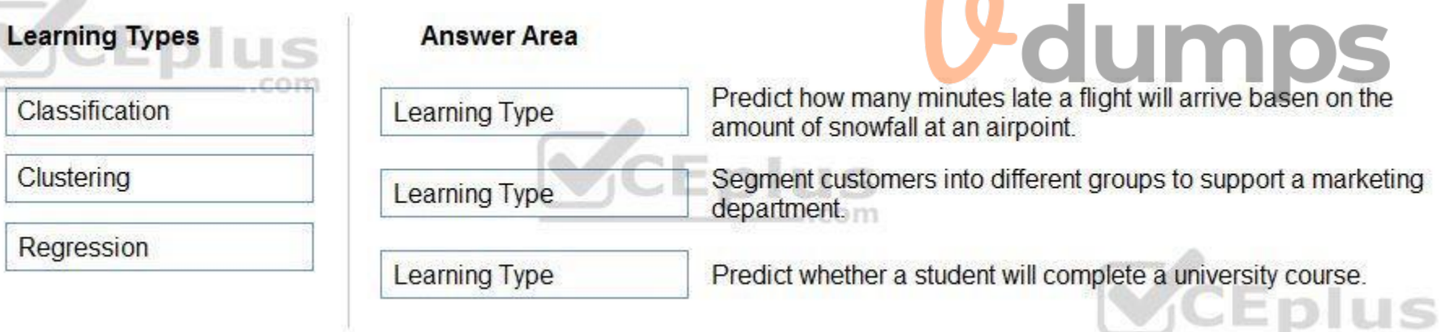
Correct Answer:



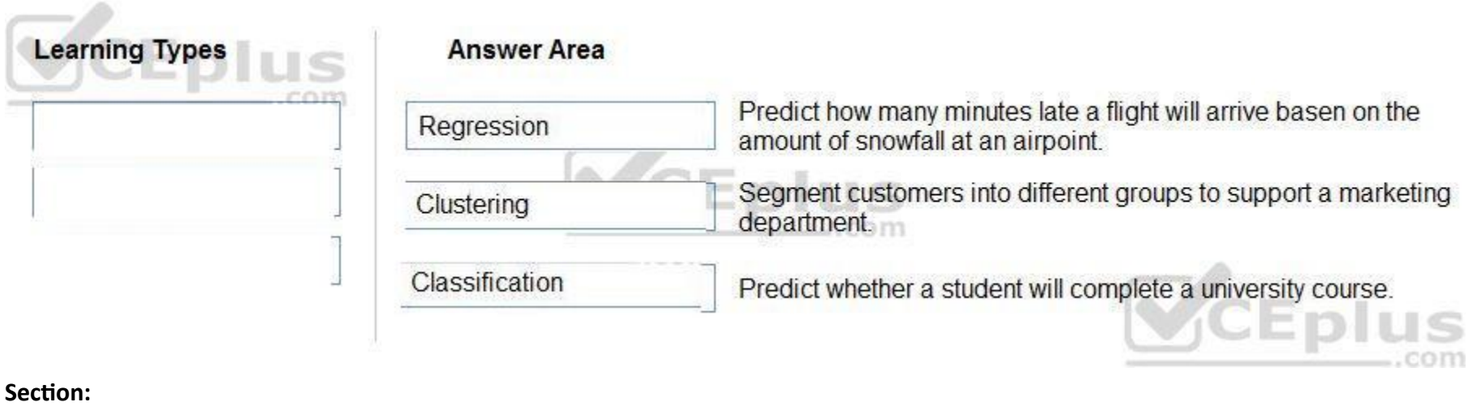
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/learn/paths/get-started-with-artificial-intelligence-on-azure/

QUESTION 70
DRAG DROP
Match the types of machine learning to the appropriate scenarios.
To answer, drag the appropriate machine learning type from the column on the left to its scenario on the right. Each machine learning type may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:



Correct Answer:

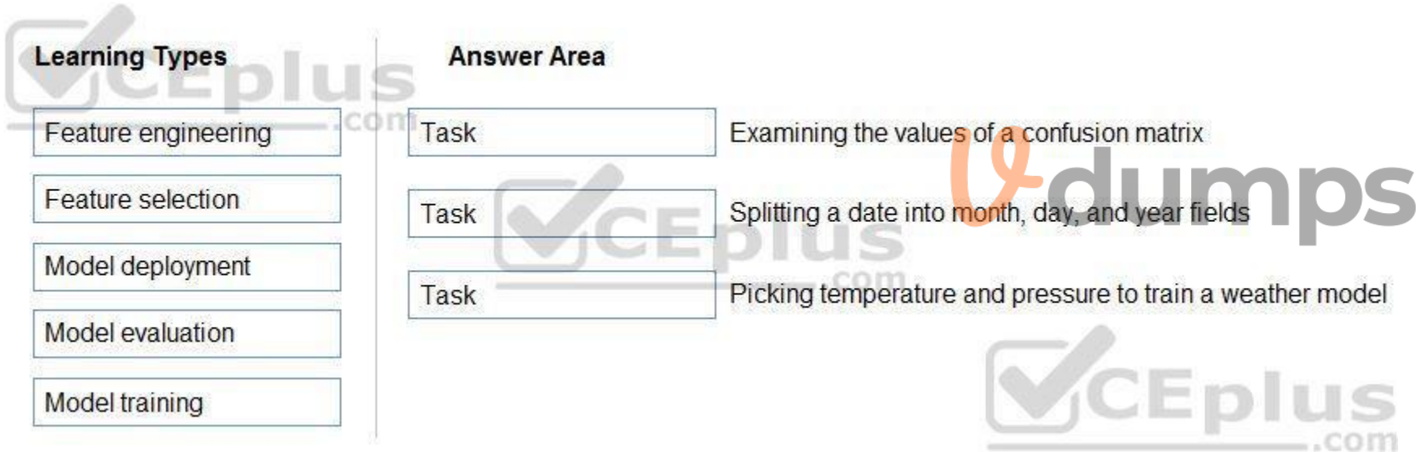


Section:
Explanation:

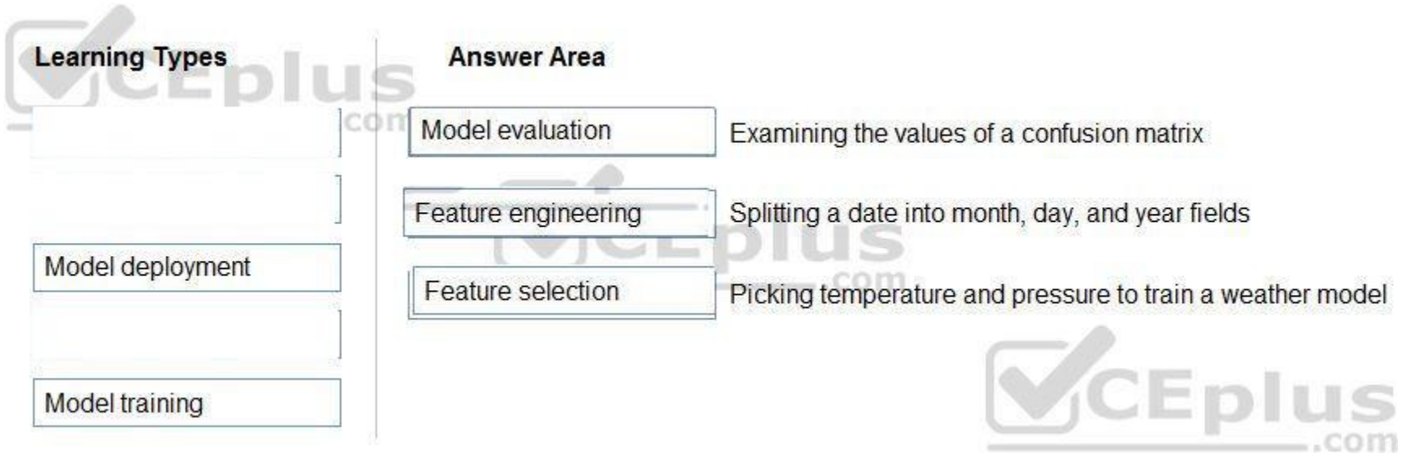
Box 1: Regression
In the most basic sense, regression refers to prediction of a numeric target.
Linear regression attempts to establish a linear relationship between one or more independent variables and a numeric outcome, or dependent variable.
You use this module to define a linear regression method, and then train a model using a labeled dataset. The trained model can then be used to make predictions.
Box 2: Classification
Classification is a machine learning method that uses data to determine the category, type, or class of an item or row of data.
Box 3: Clustering
Clustering, in machine learning, is a method of grouping data points into similar clusters. It is also called segmentation.
Over the years, many clustering algorithms have been developed. Almost all clustering algorithms use the features of individual items to find similar items. For example, you might apply clustering to find similar people by demographics. You might use clustering with text analysis to group sentences with similar topics or sentiment.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/studio-module-reference/linear-regression

QUESTION 71
DRAG DROP
Match the machine learning tasks to the appropriate scenarios.
To answer, drag the appropriate task from the column on the left to its scenario on the right. Each task may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:



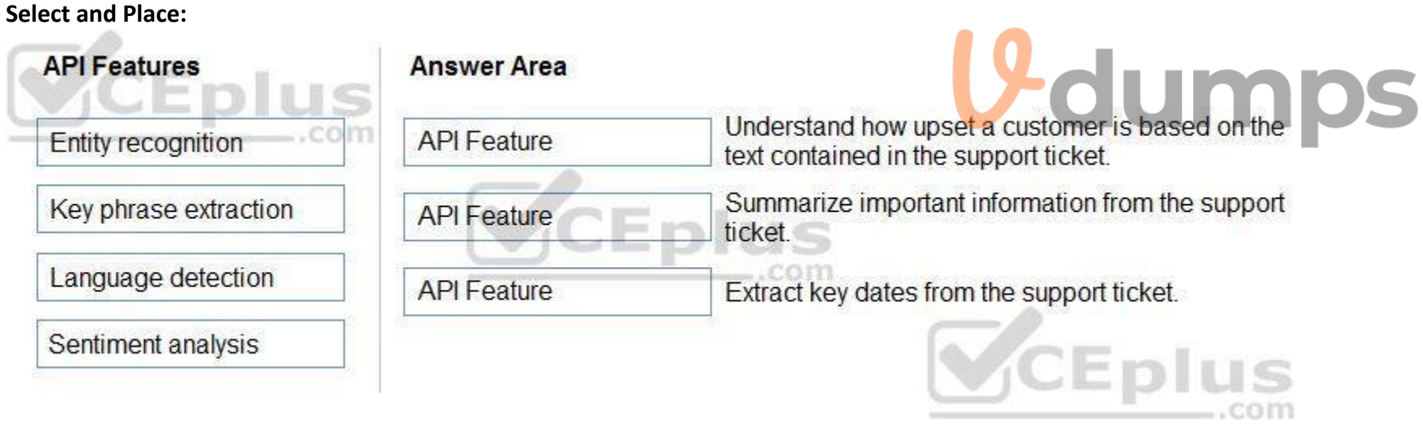
Correct Answer:



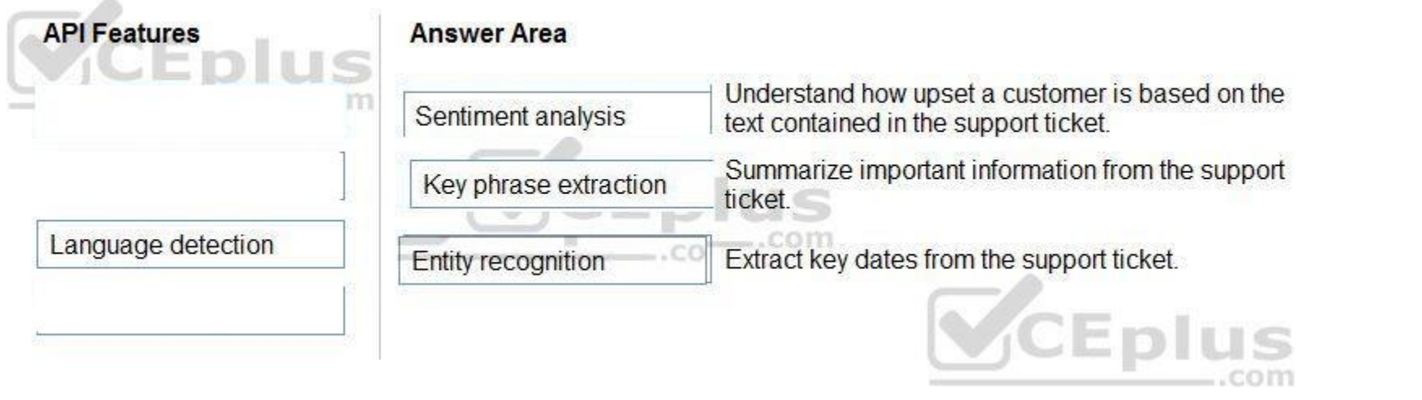
Section:
Explanation:
Box 1: Model evaluation
The Model evaluation module outputs a confusion matrix showing the number of true positives, false negatives, false positives, and true negatives, as well as ROC, Precision/Recall, and Lift curves.
Box 2: Feature engineering
Feature engineering is the process of using domain knowledge of the data to create features that help ML algorithms learn better. In Azure Machine Learning, scaling and normalization techniques are applied to facilitate feature engineering. Collectively, these techniques and feature engineering are referred to as featurization.
Note: Often, features are created from raw data through a process of feature engineering. For example, a time stamp in itself might not be useful for modeling until the information is transformed into units of days, months, or categories that are relevant to the problem, such as holiday versus working day.
Box 3: Feature selection
In machine learning and statistics, feature selection is the process of selecting a subset of relevant, useful features to use in building an analytical model. Feature selection helps narrow the field of data to the most valuable inputs. Narrowing the field of data helps reduce noise and improve training performance.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/studio/evaluate-model-performance
https://docs.microsoft.com/en-us/azure/machine-learning/concept-automated-ml

QUESTION 72
DRAG DROP
You plan to apply Text Analytics API features to a technical support ticketing system.
Match the Text Analytics API features to the appropriate natural language processing scenarios.
To answer, drag the appropriate feature from the column on the left to its scenario on the right. Each feature may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:



Correct Answer:



Section:
Explanation:
Box1: Sentiment analysis
Sentiment Analysis is the process of determining whether a piece of writing is positive, negative or neutral.
Box 2: Broad entity extraction
Broad entity extraction: Identify important concepts in text, including key
Key phrase extraction/ Broad entity extraction: Identify important concepts in text, including key phrases and named entities such as people, places, and organizations.
Box 3: Entity Recognition
Named Entity Recognition: Identify and categorize entities in your text as people, places, organizations, date/time, quantities, percentages, currencies, and more. Well-known entities are also recognized and linked to more information on the web.
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing
https://azure.microsoft.com/en-us/services/cognitive-services/text-analytics

QUESTION 73
You are building a tool that will process your company's product images and identify the products of competitors.
The solution will use a custom model.
Which Azure Cognitive Services service should you use?

A. Custom Vision
B. Form Recognizer
C. Face
D. Computer Vision

Correct Answer: C
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/overview

QUESTION 74
You plan to develop a bot that will enable users to query a knowledge base by using natural language processing.
Which two services should you include in the solution? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

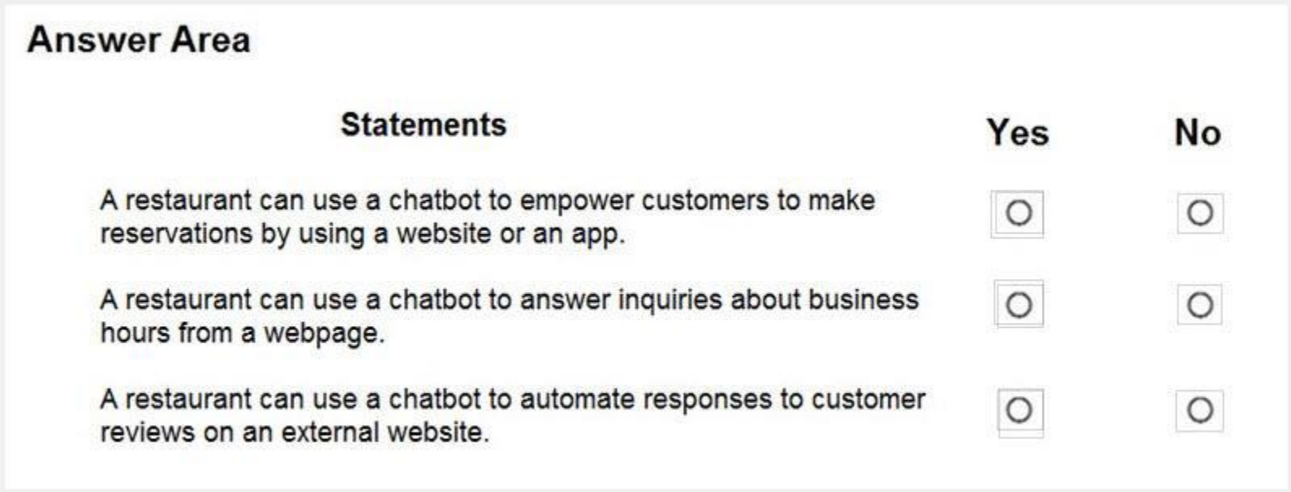
A. QnA Maker
B. Azure Bot Service
C. Form Recognizer
D. Anomaly Detector

Correct Answer: A, B
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4.0
https://docs.microsoft.com/en-us/azure/cognitive-services/luis/choose-natural-language-processing-service

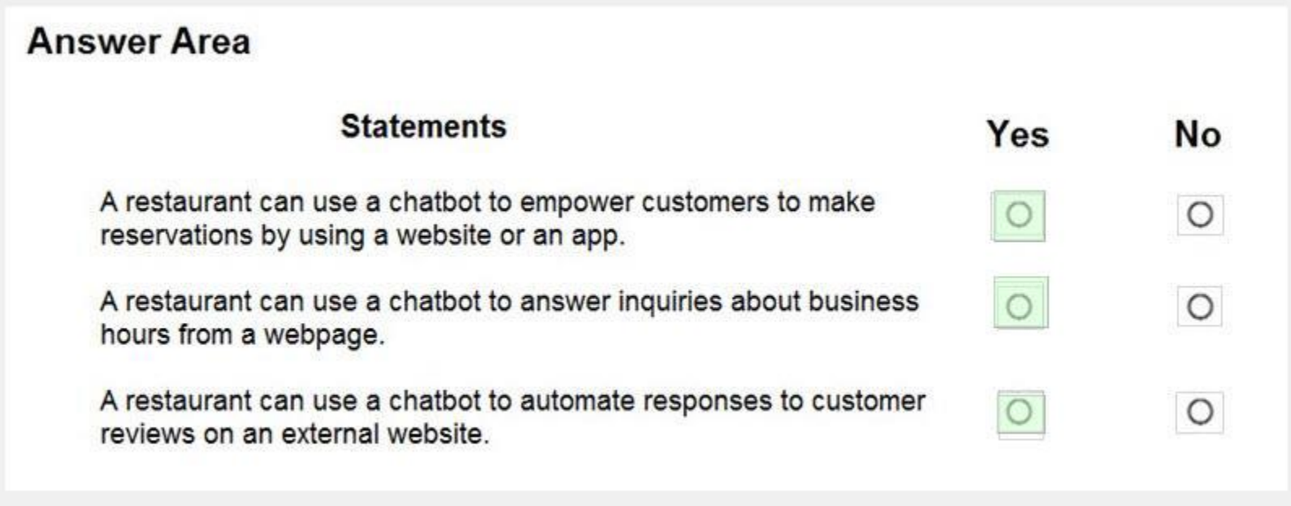
QUESTION 75
HOTSPOT

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area:



Section:
Explanation:
Reference:

https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4.0

QUESTION 76
You have a webchat bot that provides responses from a QnA Maker knowledge base.
You need to ensure that the bot uses user feedback to improve the relevance of the responses over time.
What should you use?

A. key phrase extraction
B. sentiment analysis
C. business logic
D. active learning

Correct Answer: D
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/improve-knowledge-base

QUESTION 77
You are developing a conversational AI solution that will communicate with users through multiple channels including email, Microsoft Teams, and webchat.
Which service should you use?

A. Text Analytics
B. Azure Bot Service
C. Translator
D. Form Recognizer

Correct Answer: B
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4.0

QUESTION 78
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A bot that responds to queries by internal users is an example of a conversational AI workload.	○	○
An application that displays images relating to an entered search term is an example of a conversational AI workload.	○	○
A web form used to submit a request to reset a password is an example of a conversational AI workload.	○	○

Answer Area:

Answer Area

Statements	Yes	No
A bot that responds to queries by internal users is an example of a conversational AI workload.	○	○
An application that displays images relating to an entered search term is an example of a conversational AI workload.	○	○
A web form used to submit a request to reset a password is an example of a conversational AI workload.	○	○

Section:
Explanation:

Reference:
https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4.0

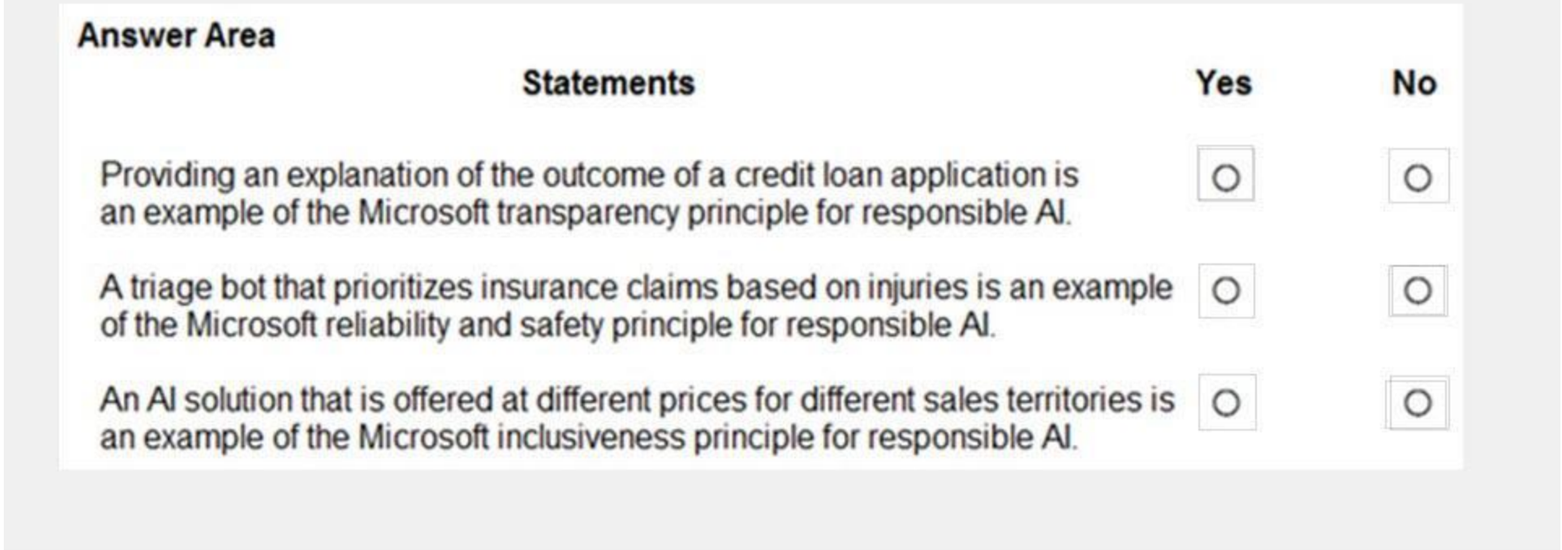
QUESTION 79
When you design an AI system to assess whether loans should be approved, the factors used to make the decision should be explainable.
This is an example of which Microsoft guiding principle for responsible AI?

A. transparency
B. inclusiveness
C. fairness
D. privacy and security

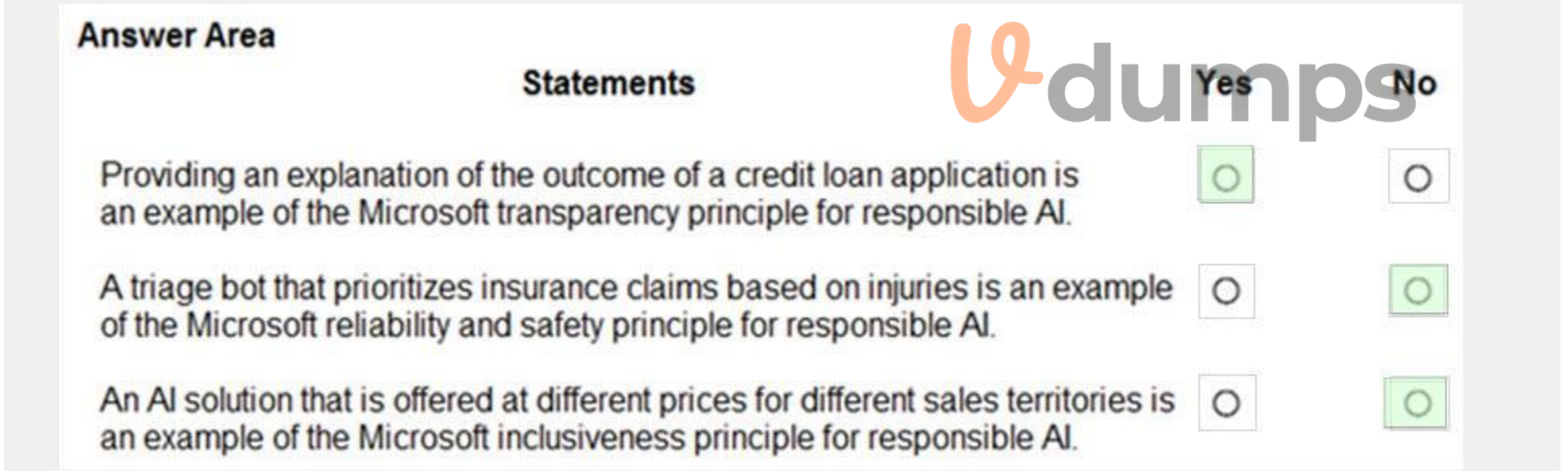
Correct Answer: A
Section:
Explanation:
Achieving transparency helps the team to understand the data and algorithms used to train the model, what transformation logic was applied to the data, the final model generated, and its associated assets. This information offers insights about how the model was created, which allows it to be reproduced in a transparent way.
Incorrect Answers:
B: Inclusiveness mandates that AI should consider all human races and experiences, and inclusive design practices can help developers to understand and address potential barriers that could unintentionally exclude people. Where possible, speech-to-text, text-to-speech, and visual recognition technology should be used to empower people with hearing, visual, and other impairments. C: Fairness is a core ethical principle that all humans aim to understand and apply. This principle is even more important when AI systems are being developed. Key checks and balances need to make sure that the system's decisions don't discriminate or run a gender, race, sexual orientation, or religion bias toward a group or individual. D: A data holder is obligated to protect the data in an AI system, and privacy and security are an integral part of this system. Personal needs to be secured, and it should be accessed in a way that doesn't compromise an individual's privacy.
Reference:
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/responsible-ai

QUESTION 80
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area:



Section:

Explanation:

Box 1: Yes

Achieving transparency helps the team to understand the data and algorithms used to train the model, what transformation logic was applied to the data, the final model generated, and its associated assets. This information offers insights about how the model was created, which allows it to be reproduced in a transparent way.

Box 2: No

A data holder is obligated to protect the data in an AI system, and privacy and security are an integral part of this system. Personal needs to be secured, and it should be accessed in a way that doesn't compromise an individual's privacy.

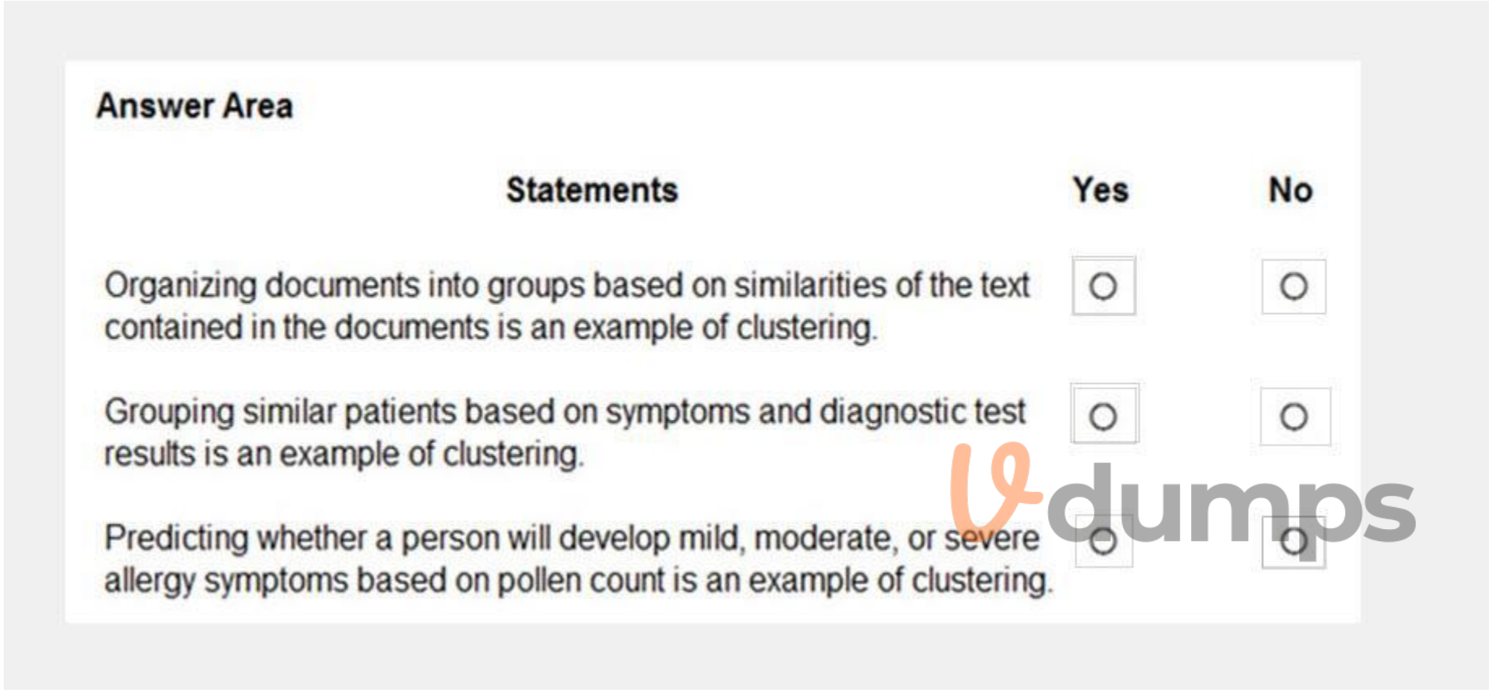
Box 3: No

Inclusiveness mandates that AI should consider all human races and experiences, and inclusive design practices can help developers to understand and address potential barriers that could unintentionally exclude people.

Where possible, speech-to-text, text-to-speech, and visual recognition technology should be used to empower people with hearing, visual, and other impairments.
Reference:
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai

QUESTION 81
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area:

Answer Area

Statements	Yes	No
Organizing documents into groups based on similarities of the text contained in the documents is an example of clustering.	○	○
Grouping similar patients based on symptoms and diagnostic test results is an example of clustering.	○	○
Predicting whether a person will develop mild, moderate, or severe allergy symptoms based on pollen count is an example of clustering.	○	○

Section:
Explanation:
Clustering is a machine learning task that is used to group instances of data into clusters that contain similar characteristics. Clustering can also be used to identify relationships in a dataset
Regression is a machine learning task that is used to predict the value of the label from a set of related features.
Reference:
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/tasks

QUESTION 82
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A validation set includes the set of input examples that will be used to train a mode.	○	○
A validation set can be used to determine how well a model predicts labels.	○	○
A validation set can be used to verify that all the training data was used to train the model.	○	○

Answer Area:

Answer Area

Statements	Yes	No
A validation set includes the set of input examples that will be used to train a mode.	○	○
A validation set can be used to determine how well a model predicts labels.	○	○
A validation set can be used to verify that all the training data was used to train the model.	○	○

Section:
Explanation:
Box 1: No
The validation dataset is different from the test dataset that is held back from the training of the model.
Box 2: Yes
A validation dataset is a sample of data that is used to give an estimate of model skill while tuning model's hyperparameters.
Box 3: No

The Test Dataset, not the validation set, used for this. The Test Dataset is a sample of data used to provide an unbiased evaluation of a final model fit on the training dataset.
Reference:
https://machinelearningmastery.com/difference-test-validation-datasets/

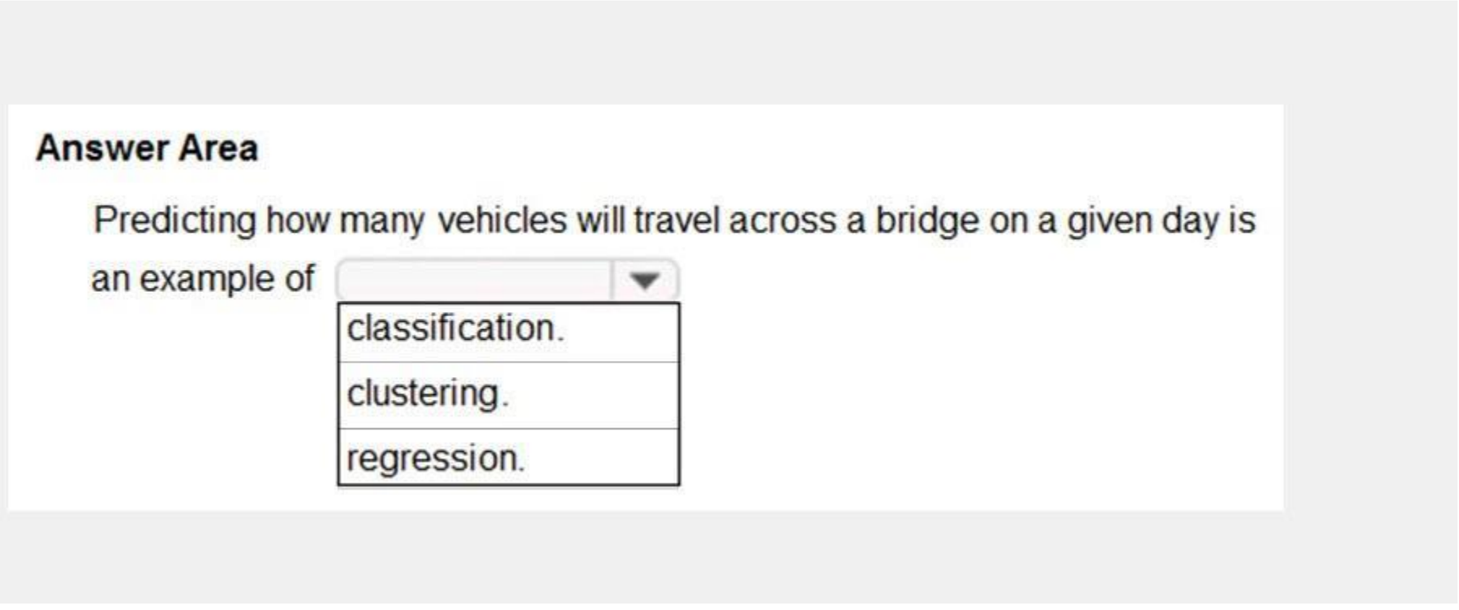
QUESTION 83
What are two metrics that you can use to evaluate a regression model? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. coefficient of determination (R2)
B. F1 score
C. root mean squared error (RMSE)
D. area under curve (AUC)
E. balanced accuracy

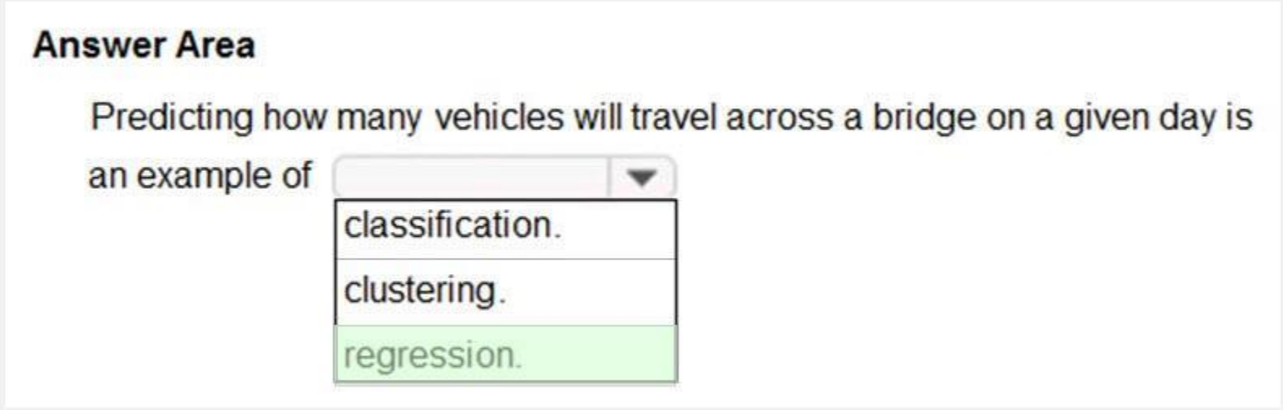
Correct Answer: A, C
Section:
Explanation:
A: R-squared (R2), or Coefficient of determination represents the predictive power of the model as a value between -inf and 1.00. 1.00 means there is a perfect fit, and the fit can be arbitrarily poor so the scores can be negative. C: RMS-loss or Root Mean Squared Error (RMSE) (also called Root Mean Square Deviation, RMSD), measures the difference between values predicted by a model and the values observed from the environment that is being modeled.
Incorrect Answers:
B: F1 score also known as balanced F-score or F-measure is used to evaluate a classification model. D: aucROC or area under the curve (AUC) is used to evaluate a classification model.
Reference:
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/metrics

QUESTION 84
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



Answer Area:



Section:
Explanation:
Regression is a machine learning task that is used to predict the value of the label from a set of related features.
Reference:
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/tasks

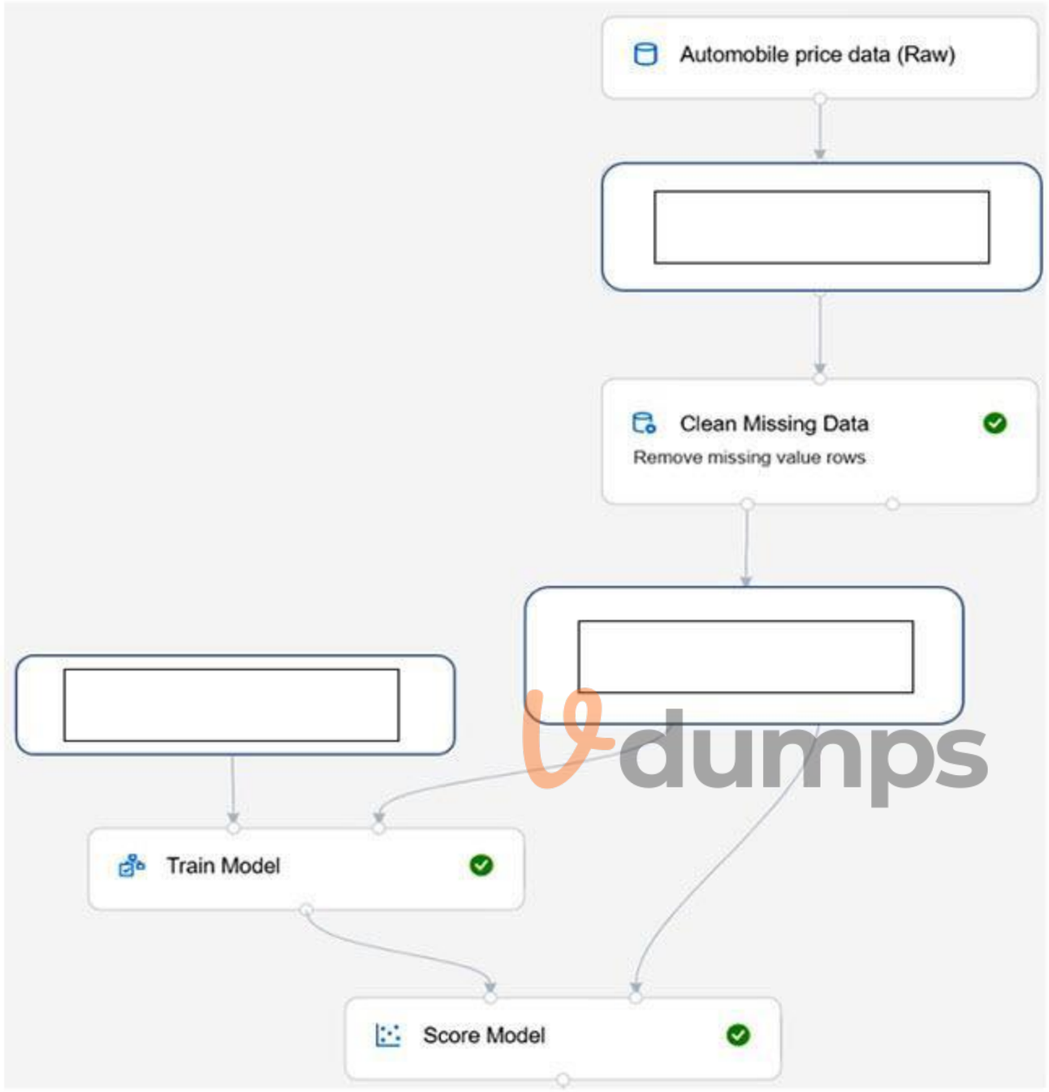
QUESTION 85
DRAG DROP
You need to use Azure Machine Learning designer to build a model that will predict automobile prices.
Which type of modules should you use to complete the model? To answer, drag the appropriate modules to the correct locations. Each module may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Select and Place:

Modules

- Convert to CSV
- K-Means Clustering
- Linear Regression
- Split Data
- Select Columns in Dataset
- Summarize Data

Answer Area

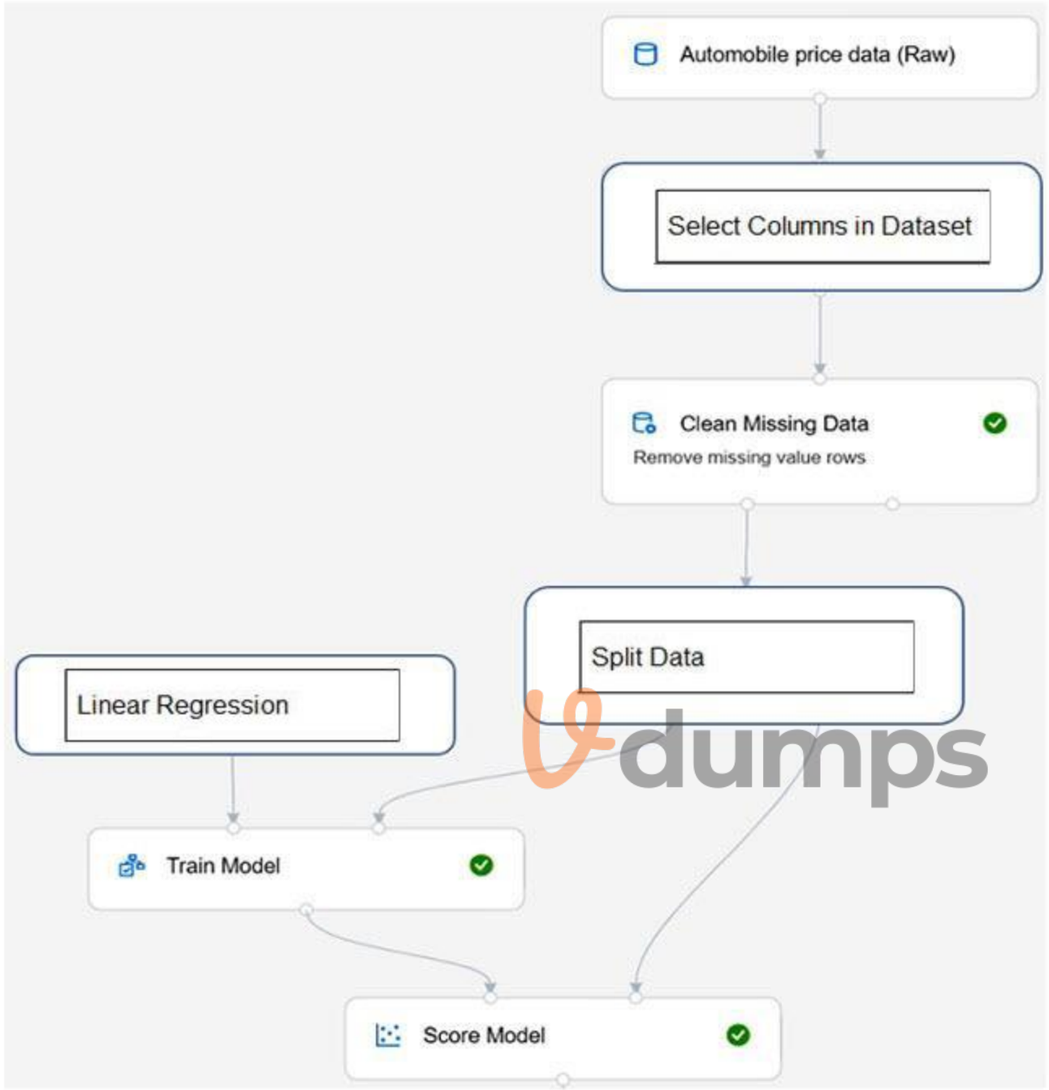


Correct Answer:

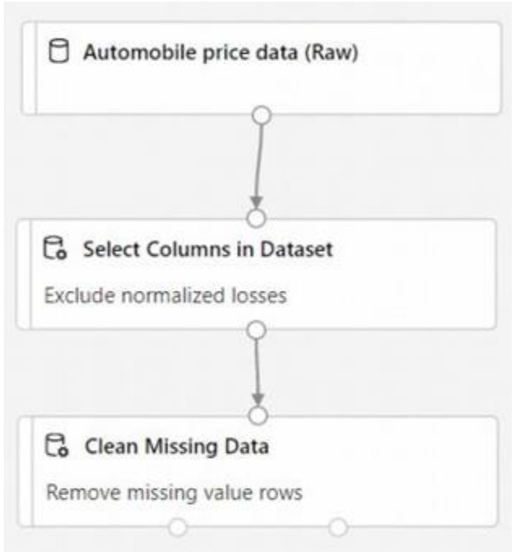
Modules

- Convert to CSV
- K-Means Clustering
- Summarize Data

Answer Area



Section:
Explanation:
Box 1: Select Columns in Dataset
For Columns to be cleaned, choose the columns that contain the missing values you want to change. You can choose multiple columns, but you must use the same replacement method in all selected columns. Example:



Box 2: Split data
Splitting data is a common task in machine learning. You will split your data into two separate datasets. One dataset will train the model and the other will test how well the model performed.
Box 3: Linear regression
Because you want to predict price, which is a number, you can use a regression algorithm. For this example, you use a linear regression model.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/tutorial-designer-automobile-price-train-score

QUESTION 86
Which type of machine learning should you use to identify groups of people who have similar purchasing habits?

A. classification
B. regression
C. clustering

Correct Answer: C
Section:
Explanation:
Clustering is a machine learning task that is used to group instances of data into clusters that contain similar characteristics. Clustering can also be used to identify relationships in a dataset
Reference:
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/tasks

QUESTION 87
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area:

Section:
Explanation:
Regression is a machine learning task that is used to predict the value of the label from a set of related features.
Reference:
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/tasks

QUESTION 88
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Custom Vision service can be used to detect objects in an image.	○	○
The Custom Vision service requires that you provide your own data to train the model.	○	○
The Custom Vision service can be used to analyze video files.	○	○

Answer Area:

Answer Area

Statements	Yes	No
The Custom Vision service can be used to detect objects in an image.	○	○
The Custom Vision service requires that you provide your own data to train the model.	○	○
The Custom Vision service can be used to analyze video files.	○	○

Section:
Explanation:
Box 1: Yes
Custom Vision functionality can be divided into two features. Image classification applies one or more labels to an image. Object detection is similar, but it also returns the coordinates in the image where the applied label(s) can be found.
Box 2: Yes

The Custom Vision service uses a machine learning algorithm to analyze images. You, the developer, submit groups of images that feature and lack the characteristics in question. You label the images yourself at the time of submission. Then, the algorithm trains to this data and calculates its own accuracy by testing itself on those same images.
Box 3: No
Custom Vision service can be used only on graphic files.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/Custom-Vision-Service/overview

QUESTION 89
You are processing photos of runners in a race.
You need to read the numbers on the runners' shirts to identity the runners in the photos.
Which type of computer vision should you use?

A. facial recognition
B. optical character recognition (OCR)
C. semantic segmentation
D. object detection

Correct Answer: B
Section:
Explanation:
Optical character recognition (OCR) allows you to extract printed or handwritten text from images and documents.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-ocr

QUESTION 90
DRAG DROP
Match the types of machine learning to the appropriate scenarios.
To answer, drag the appropriate machine learning type from the column on the left to its scenario on the right. Each machine learning type may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:

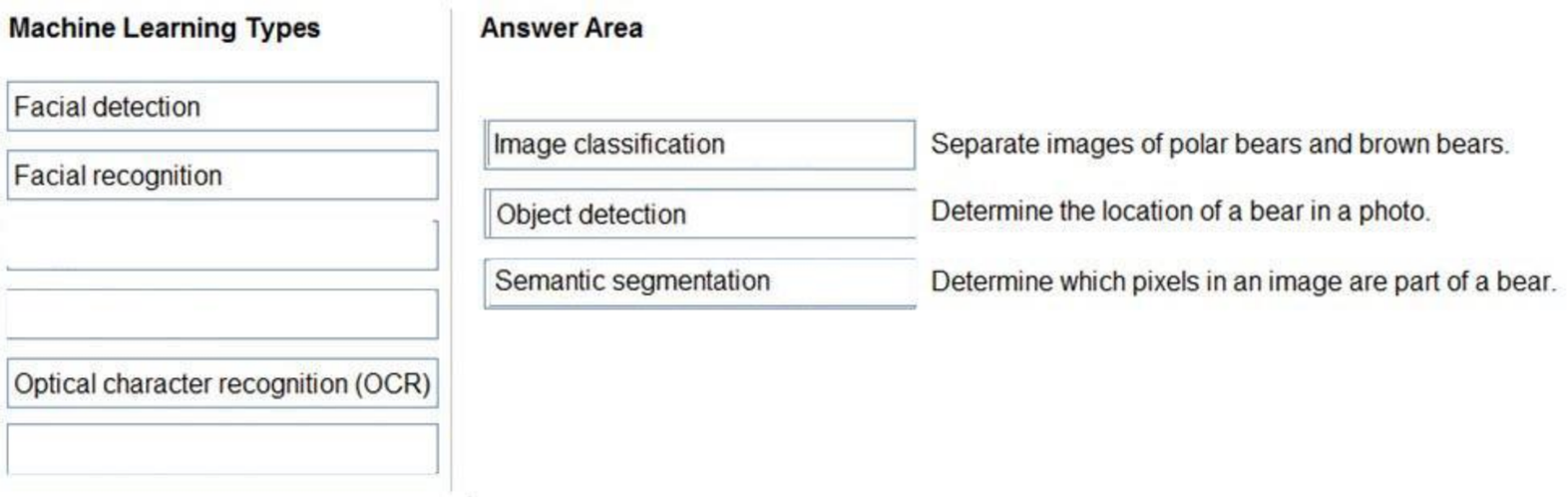
Machine Learning Types

- Facial detection
- Facial recognition
- Image classification
- Object detection
- Optical character recognition (OCR)
- Semantic segmentation

Answer Area

Machine Learning Type	Separate images of polar bears and brown bears.
Machine Learning Type	Determine the location of a bear in a photo.
Machine Learning Type	Determine which pixels in an image are part of a bear.

Correct Answer:



Section:
Explanation:
Box 1: Image classification
Image classification is a supervised learning problem: define a set of target classes (objects to identify in images), and train a model to recognize them using labeled example photos.
Box 2: Object detection
Object detection is a computer vision problem. While closely related to image classification, object detection performs image classification at a more granular scale. Object detection both locates and categorizes entities within images.
Box 3: Semantic Segmentation
Semantic segmentation achieves fine-grained inference by making dense predictions inferring labels for every pixel, so that each pixel is labeled with the class of its enclosing object ore region.
Reference:
https://developers.google.com/machine-learning/practica/image-classification
https://docs.microsoft.com/en-us/dotnet/machine-learning/tutorials/object-detection-model-builder
https://nanonets.com/blog/how-to-do-semantic-segmentation-using-deep-learning/

QUESTION 91
You use drones to identify where weeds grow between rows of crops to send an instruction for the removal of the weeds.
This is an example of which type of computer vision?

A. object detection
B. optical character recognition (OCR)
C. scene segmentation

Correct Answer: A
Section:
Explanation:
Object detection is similar to tagging, but the API returns the bounding box coordinates for each tag applied. For example, if an image contains a dog, cat and person, the Detect operation will list those objects together with their coordinates in the image.
Incorrect Answers:
B: Optical character recognition (OCR) allows you to extract printed or handwritten text from images and documents. C: Scene segmentation determines when a scene changes in video based on visual cues. A scene depicts a single event and it's composed by a series of consecutive shots, which are semantically related.
Reference:
https://docs.microsoft.com/en-us/ai-builder/object-detection-overview
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-ocr

https://docs.microsoft.com/en-us/azure/azure-video-analyzer/video-analyzer-for-media-docs/video-indexer-overview

QUESTION 92
In which two scenarios can you use a speech synthesis solution? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. an automated voice that reads back a credit card number entered into a telephone by using a numeric keypad
B. generating live captions for a news broadcast
C. extracting key phrases from the audio recording of a meeting
D. an AI character in a computer game that speaks audibly to a player

Correct Answer: A, D
Section:
Explanation:
Azure Text to Speech is a Speech service feature that converts text to lifelike speech.
Incorrect Answers:
C: Extracting key phrases is not speech synthesis.
Reference:
https://azure.microsoft.com/en-in/services/cognitive-services/text-to-speech/

QUESTION 93
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can use the Translator service to translate text between languages.	○	○
You can use the Translator service to detect the language of a given text.	○	○
You can use the Translator service to transcribe audible speech into text.	○	○

Answer Area:

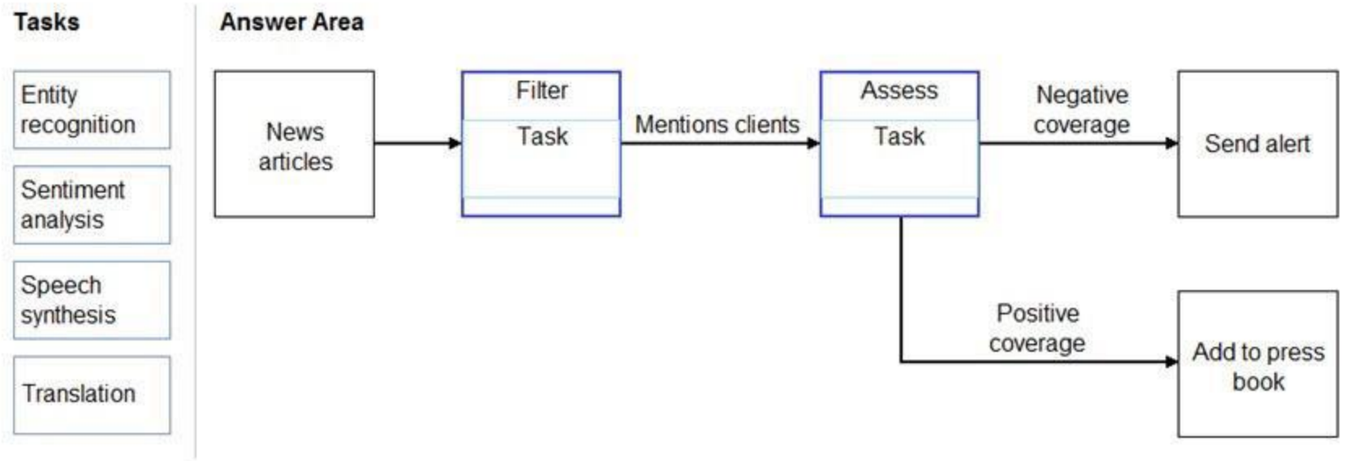
Answer Area

Statements	Yes	No
You can use the Translator service to translate text between languages.	○	○
You can use the Translator service to detect the language of a given text.	○	○
You can use the Translator service to transcribe audible speech into text.	○	○

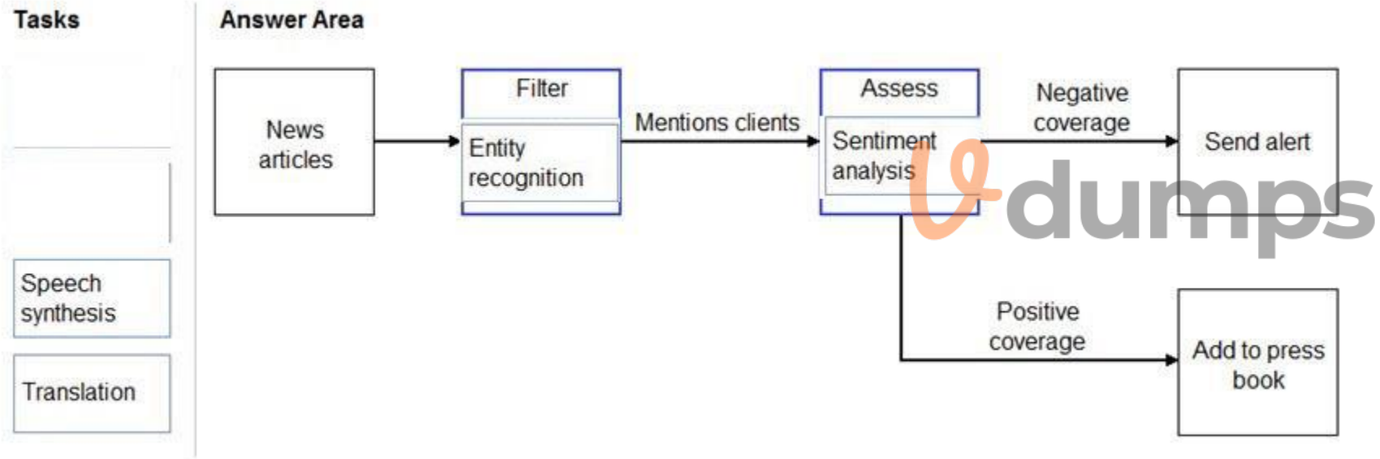
Section:
Explanation:
The translator service provides multi-language support for text translation, transliteration, language detection, and dictionaries.
Speech-to-Text, also known as automatic speech recognition (ASR), is a feature of Speech Services that provides transcription.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/Translator/translator-info-overview
https://docs.microsoft.com/en-us/legal/cognitive-services/speech-service/speech-to-text/transparency-note

QUESTION 94
DRAG DROP
You need to scan the news for articles about your customers and alert employees when there is a negative article. Positive articles must be added to a press book.
Which natural language processing tasks should you use to complete the process? To answer, drag the appropriate tasks to the correct locations. Each task may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Select and Place:



Correct Answer:



Section:
Explanation:
Box 1: Entity recognition
the Named Entity Recognition module in Machine Learning Studio (classic), to identify the names of things, such as people, companies, or locations in a column of text.
Named entity recognition is an important area of research in machine learning and natural language processing (NLP), because it can be used to answer many real-world questions, such as:
Which companies were mentioned in a news article?
Does a tweet contain the name of a person? Does the tweet also provide his current location?
Were specified products mentioned in complaints or reviews?
Box 2: Sentiment Analysis
The Text Analytics API's Sentiment Analysis feature provides two ways for detecting positive and negative sentiment. If you send a Sentiment Analysis request, the API will return sentiment labels (such as "negative", "neutral" and "positive") and confidence scores at the sentence and document-level.
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/studio-module-reference/named-entity-recognition
https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-sentiment-analysis

QUESTION 95
You are building a knowledge base by using QnA Maker.
Which file format can you use to populate the knowledge base?

A. PPTX
B. XML
C. ZIP
D. PDF

Correct Answer: D
Section:
Explanation:
D: Content types of documents you can add to a knowledge base:
Content types include many standard structured documents such as PDF, DOC, and TXT.
Note: The tool supports the following file formats for ingestion:
.tsv: QnA contained in the format Question(tab)Answer.
.txt, .docx, .pdf: QnA contained as regular FAQ content--that is, a sequence of questions and answers.
Incorrect Answers:
A: PPTX is the default presentation file format for new PowerPoint presentations.
B: It is not possible to ingest xml file directly.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/data-sources-and-content

QUESTION 96
In which scenario should you use key phrase extraction?

A. identifying whether reviews of a restaurant are positive or negative
B. generating captions for a video based on the audio track
C. identifying which documents provide information about the same topics
D. translating a set of documents from English to German

Correct Answer: C
Section:

QUESTION 97
You have insurance claim reports that are stored as text.
You need to extract key terms from the reports to generate summaries.
Which type of AI workload should you use?

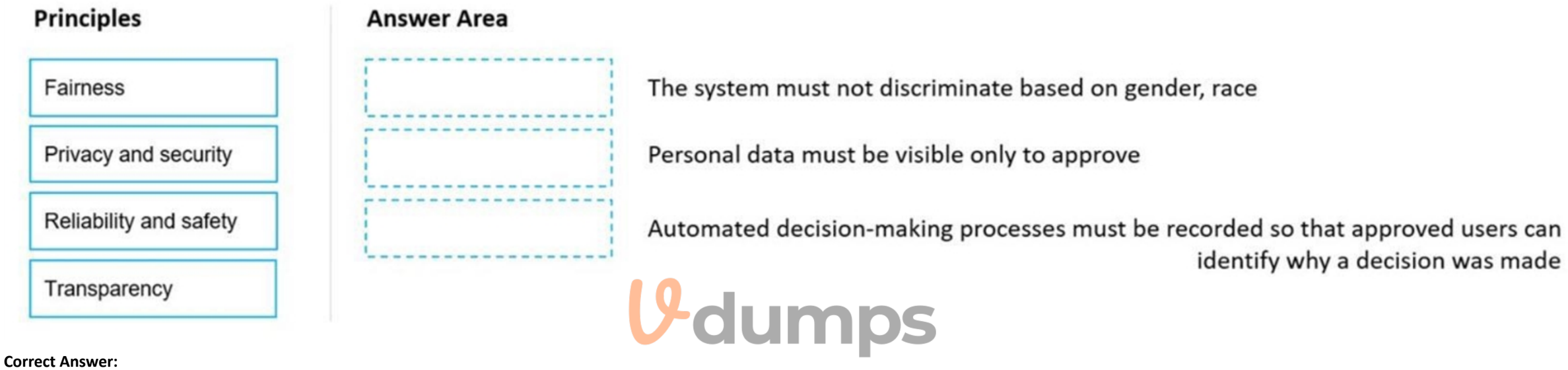
A. natural language processing
B. conversational AI
C. anomaly detection
D. computer vision

Correct Answer: A
Section:
Explanation:
Reference:

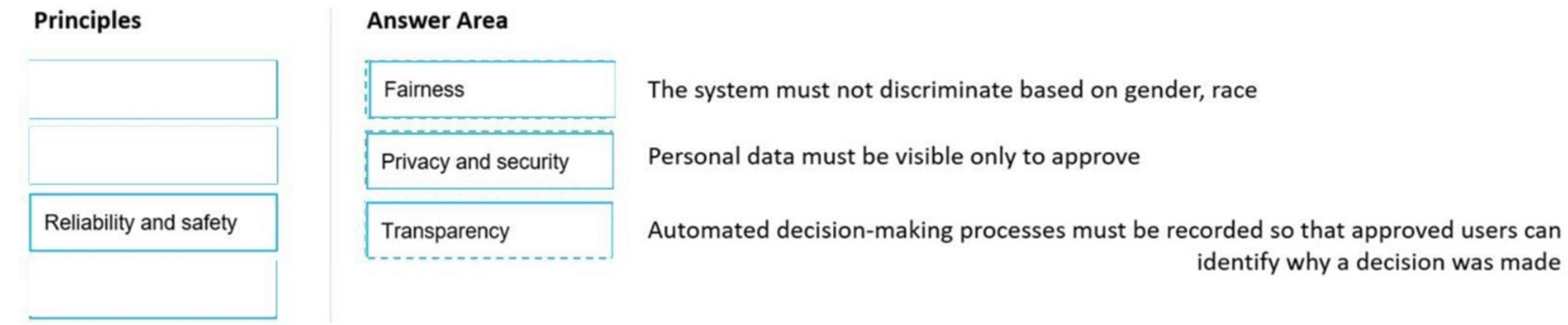
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

QUESTION 98
DRAG DROP
Match the principles of responsible AI to appropriate requirements.
To answer, drag the appropriate principles from the column on the left to its requirement on the right. Each principle may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.

Select and Place:



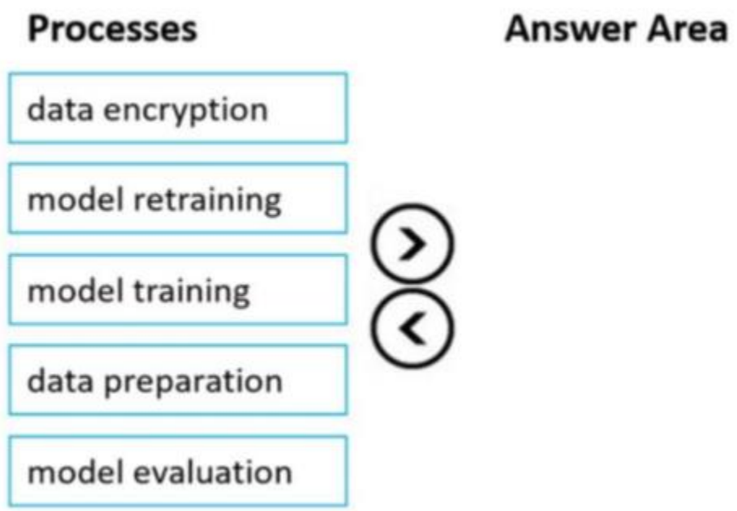
Correct Answer:



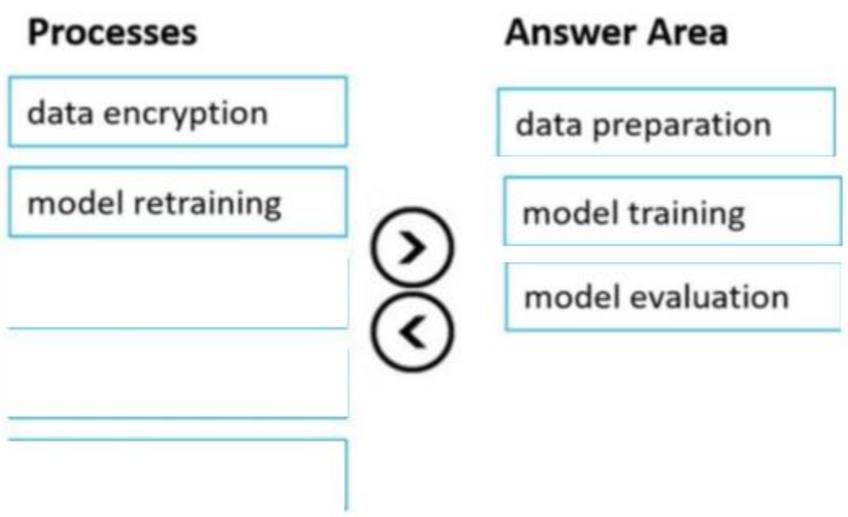
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai
https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

QUESTION 99
DRAG DROP
You plan to deploy an Azure Machine Learning model as a service that will be used by client applications.
Which three processes should you perform in sequence before you deploy the model? To answer, move the appropriate processes from the list of processes to the answer area and arrange them in the correct order.

Select and Place:



Correct Answer:



Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/concept-ml-pipelines

QUESTION 100
You are building an AI-based app.
You need to ensure that the app uses the principles for responsible AI.

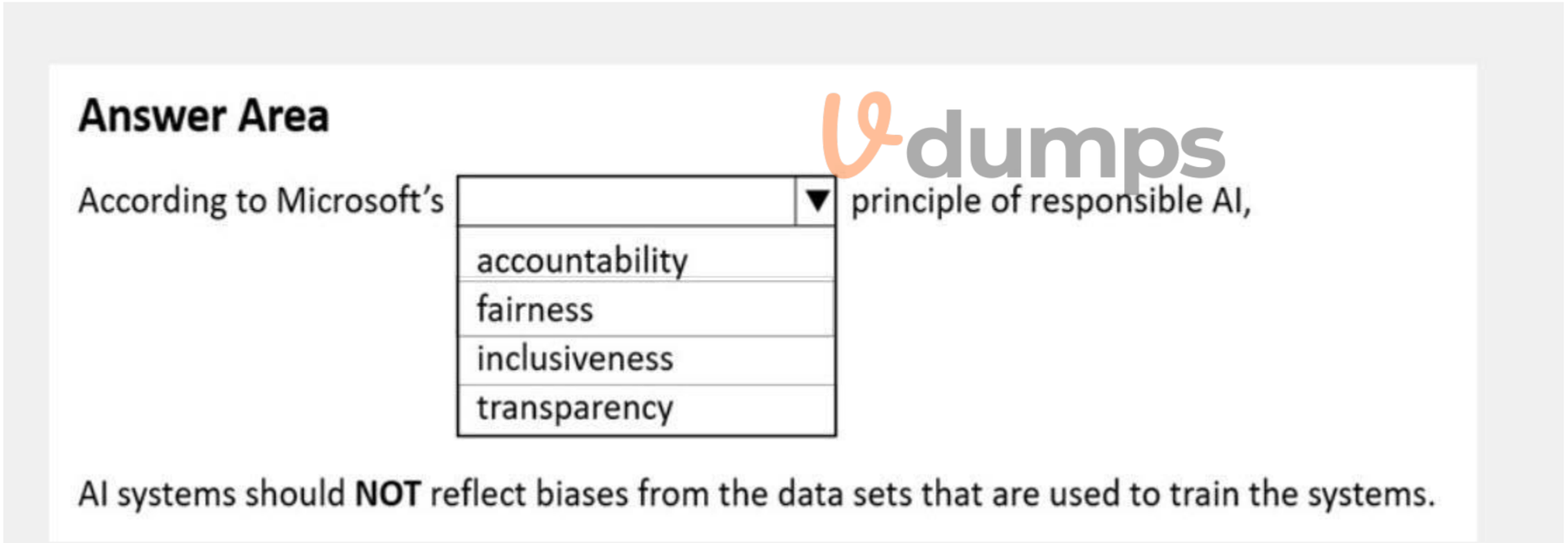
Which two principles should you follow? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

A. Implement an Agile software development methodology
B. Implement a process of AI model validation as part of the software review process
C. Establish a risk governance committee that includes members of the legal team, members of the risk management team, and a privacy officer
D. Prevent the disclosure of the use of AI-based algorithms for automated decision making

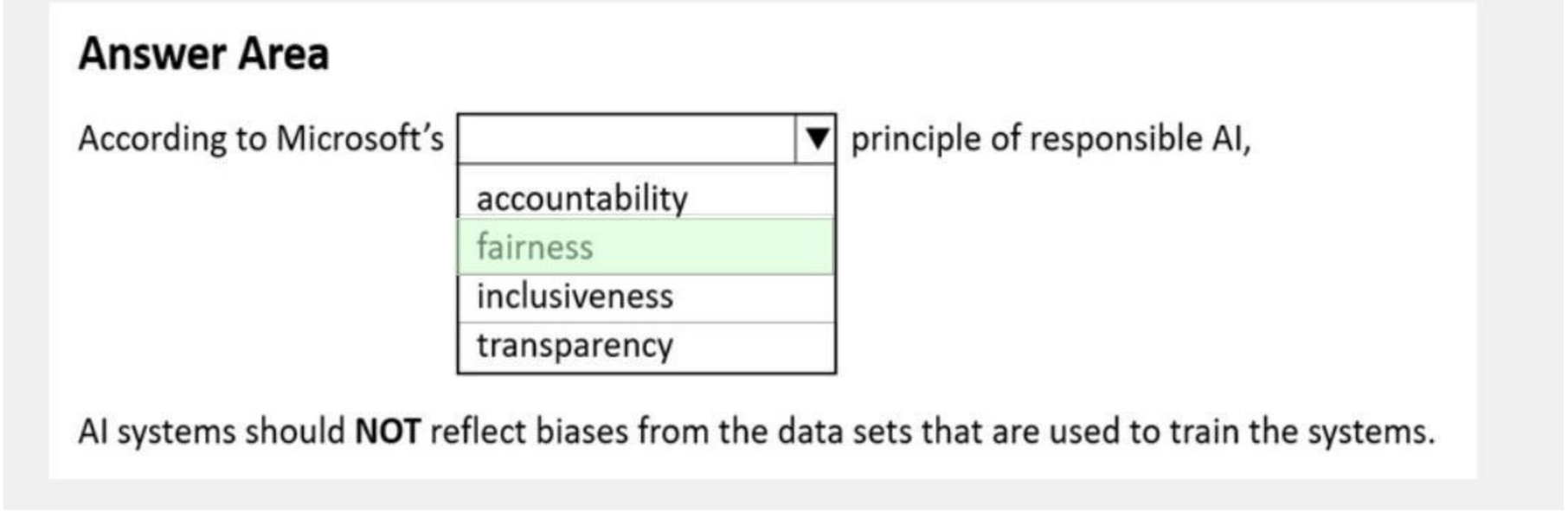
Correct Answer: B, C
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai
https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/3-implications-responsible-ai-practical

QUESTION 101
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



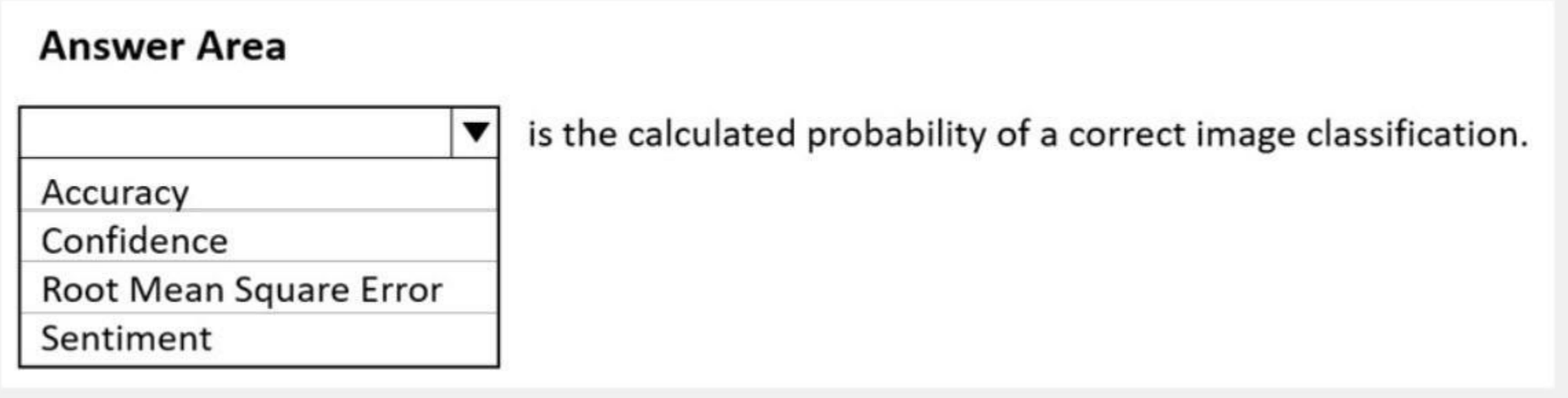
Answer Area:



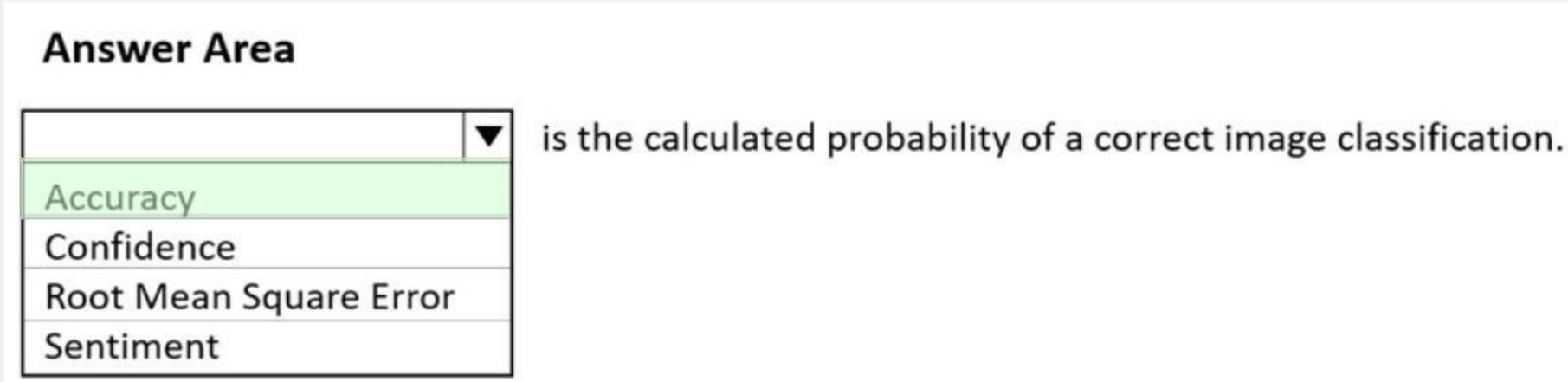
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai

QUESTION 102
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



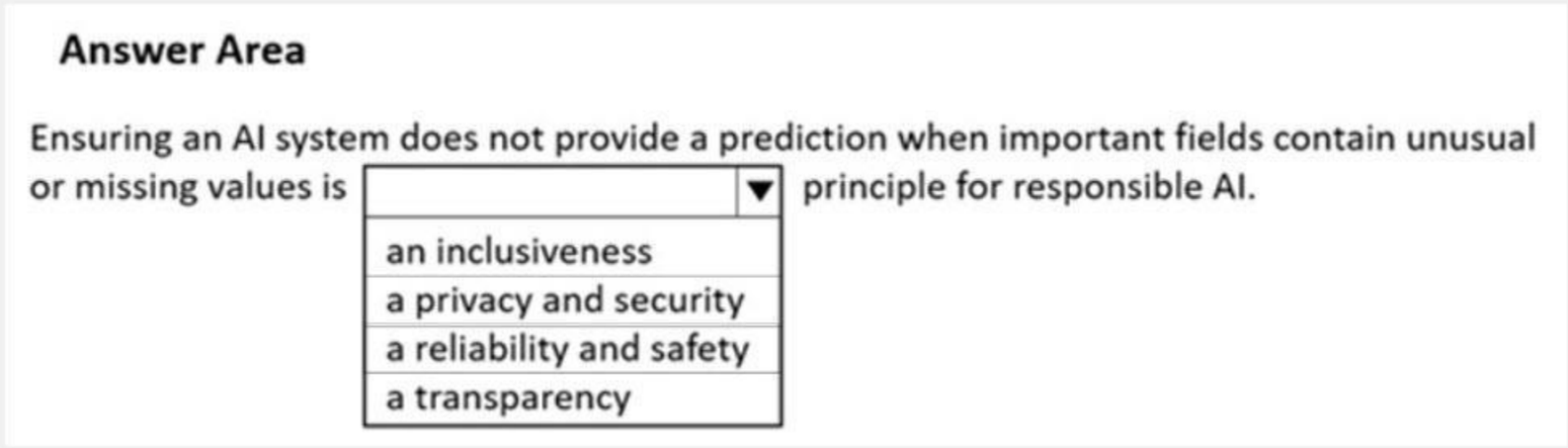
Answer Area:



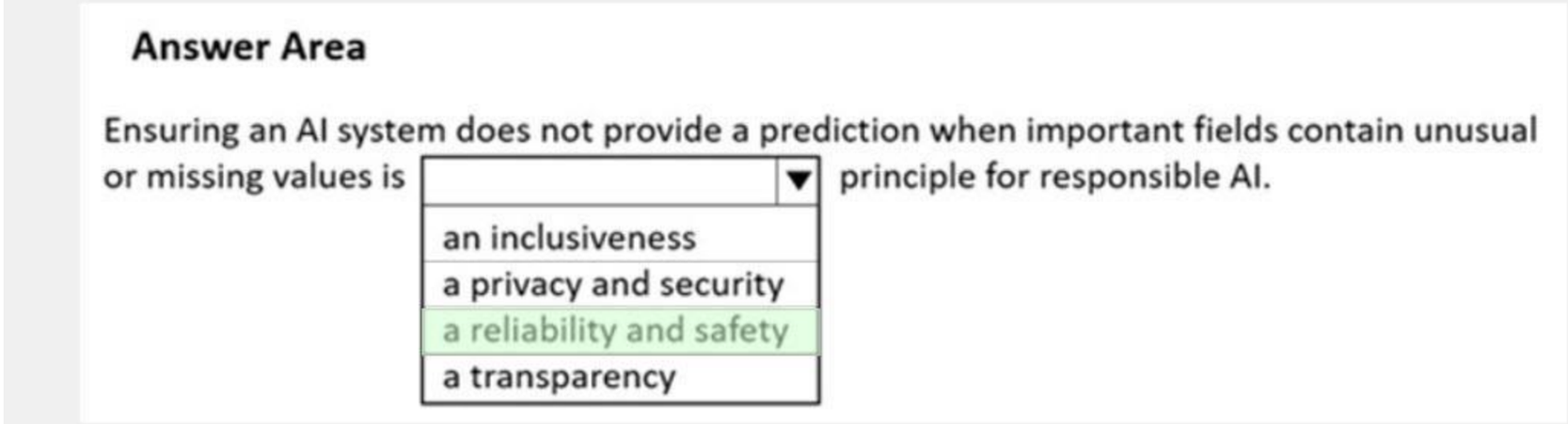
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/getting-started-build-a-classifier

QUESTION 103
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



Answer Area:



Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai

QUESTION 104
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

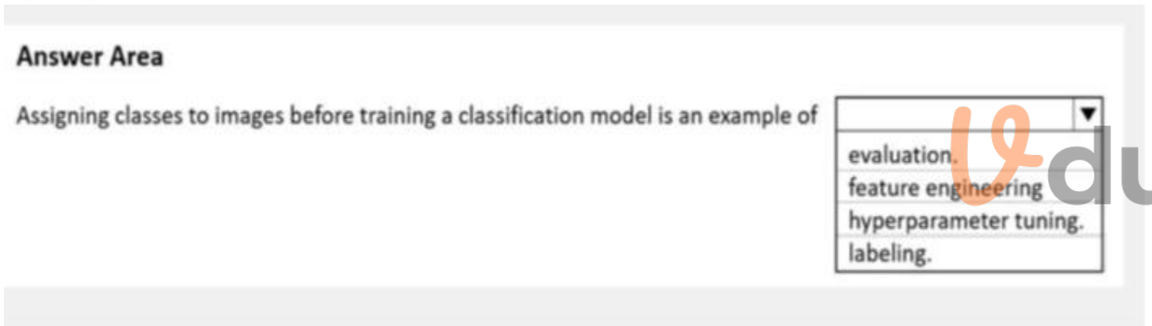
Hot Area:

Answer Area:

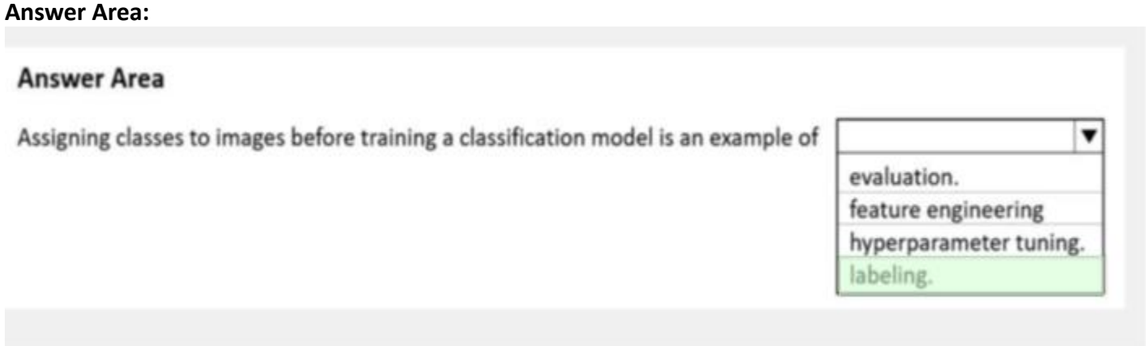
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-science-process/create-features

QUESTION 105
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:



Answer Area:



Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-label-data

QUESTION 106
You need to build an image tagging solution for social media that tags images of your friends automatically.
Which Azure Cognitive Services service should you use?

A. Face
B. Form Recognizer
C. Text Analytics
D. Computer Vision

Correct Answer: A
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/face/overview
https://docs.microsoft.com/en-us/azure/cognitive-services/face/face-api-how-to-topics/howtodetectfacesinimage

QUESTION 107
In which two scenarios can you use the Form Recognizer service? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Identify the retailer from a receipt
B. Translate from French to English
C. Extract the invoice number from an invoice
D. Find images of products in a catalog

Correct Answer: A, C
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/overview?tabs=v2-1

QUESTION 108
You are authoring a Language Understanding (LUIS) application to support a music festival.
You want users to be able to ask questions about scheduled shows, such as: “Which act is playing on the main stage?”
The question “Which act is playing on the main stage?” is an example of which type of element?

A. an intent
B. an utterance
C. a domain
D. an entity

Correct Answer: B
Section:
Explanation:
Utterances are input from the user that your app needs to interpret.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/LUIS/luis-concept-utterance

QUESTION 109
You build a QnA Maker bot by using a frequently asked questions (FAQ) page.
You need to add professional greetings and other responses to make the bot more user friendly.

What should you do?

A. Increase the confidence threshold of responses
B. Enable active learning
C. Create multi-turn questions
D. Add chit-chat

Correct Answer: D
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/chit-chat-knowledge-base?tabs=v1

QUESTION 110
You need to develop a chatbot for a website. The chatbot must answer users' questions based on the information in the following documents:
A product troubleshooting guide in a Microsoft Word document
A frequently asked questions (FAQ) list on a webpage
Which service should you use to process the documents?

A. Azure Bot Service
B. Language Understanding
C. Text Analytics
D. QnA Maker

Correct Answer: D
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/QnAMaker/Overview/overview

QUESTION 111
You are building a Language Understanding model for an e-commerce business.
You need to ensure that the model detects when utterances are outside the intended scope of the model.
What should you do?

A. Test the model by using new utterances
B. Add utterances to the None intent
C. Create a prebuilt task entity
D. Create a new model

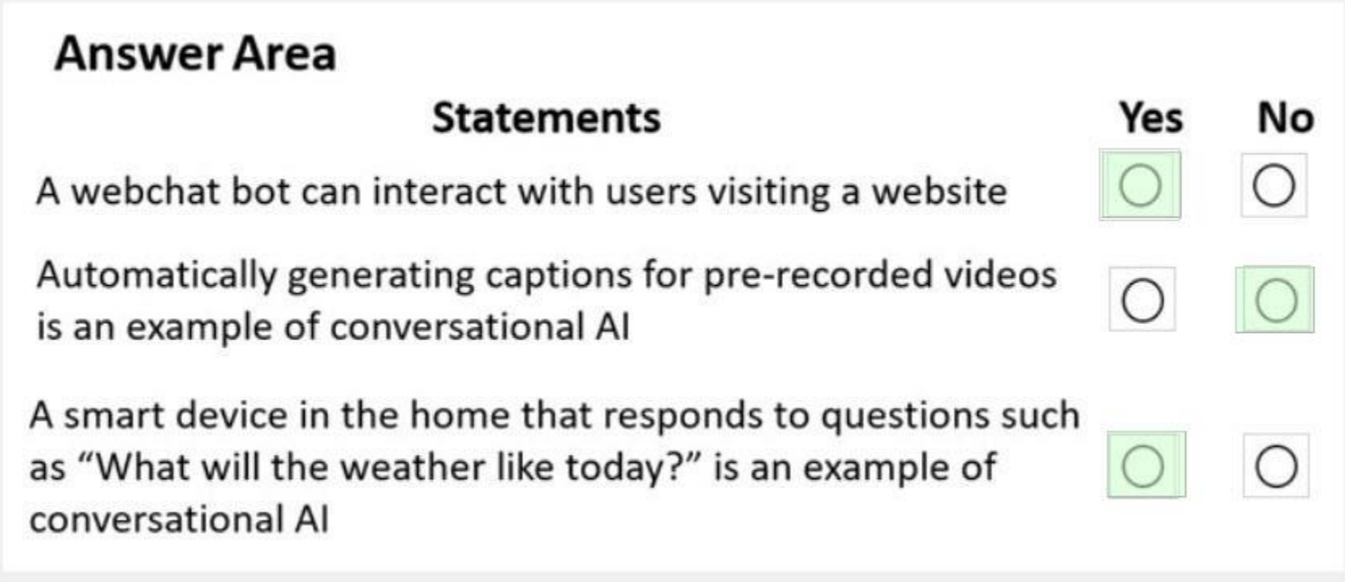
Correct Answer: B
Section:
Explanation:
The None intent is filled with utterances that are outside of your domain.
Reference:
https://docs.microsoft.com/en-us/azure/cognitive-services/LUIS/luis-concept-intent

QUESTION 112

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area:



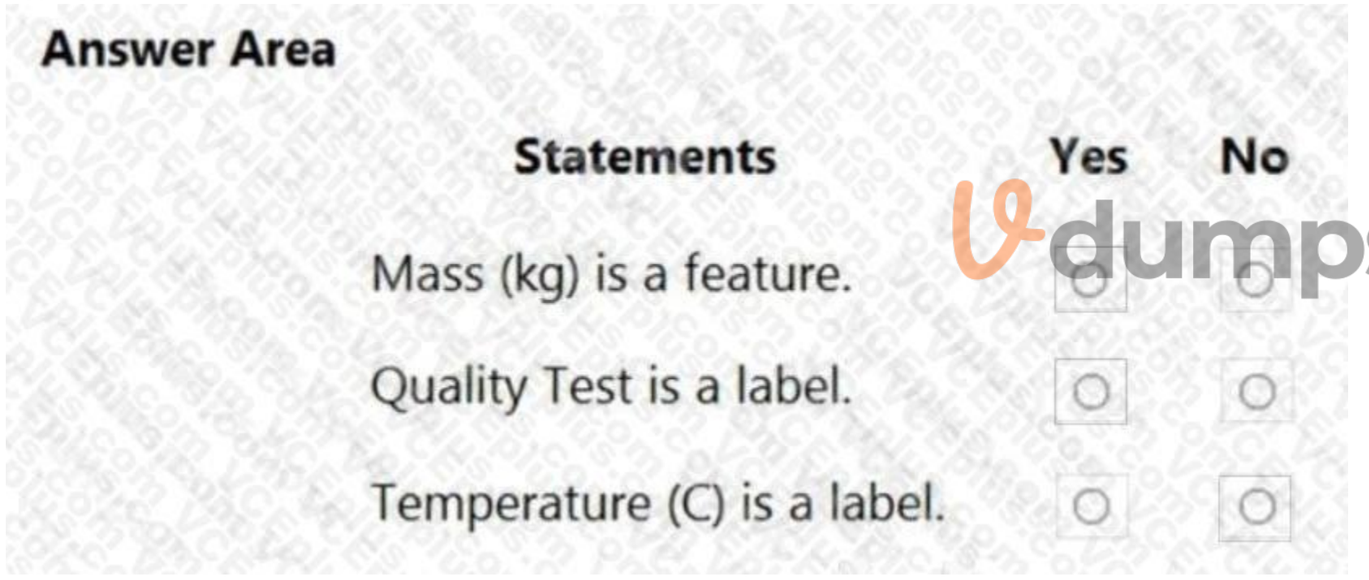
Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/ai/conversational-bot
https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-webchat-overview?view=azure-bot-service-4.0

QUESTION 113
HOTSPOT
You have an Azure Machine Learning model that predicts product quality. The model has a training dataset that contains 50,000 records. A sample of the data is shown in the following table.

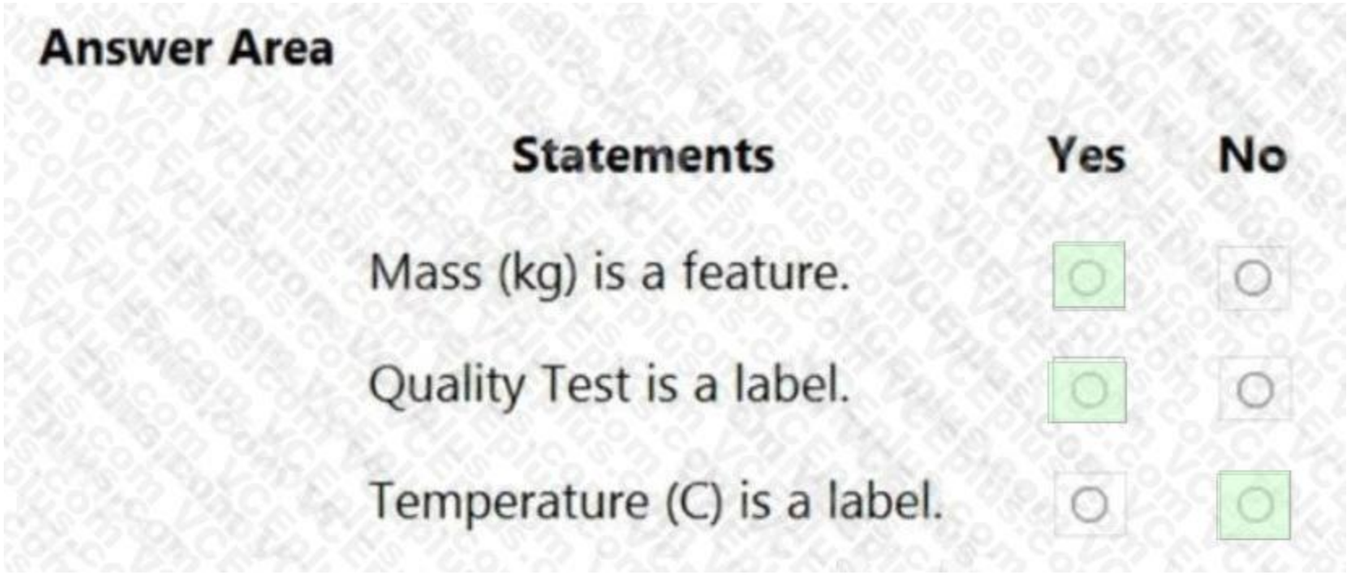
Date	Time	Mass (kg)	Temperature (C)	Quality Test
26/02/2021	15:31:07	2.108	62.5	Pass
26/02/2021	15:31:39	2.099	62.4	Pass
26/02/2021	02:32:21	2.098	66.4	Fail

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



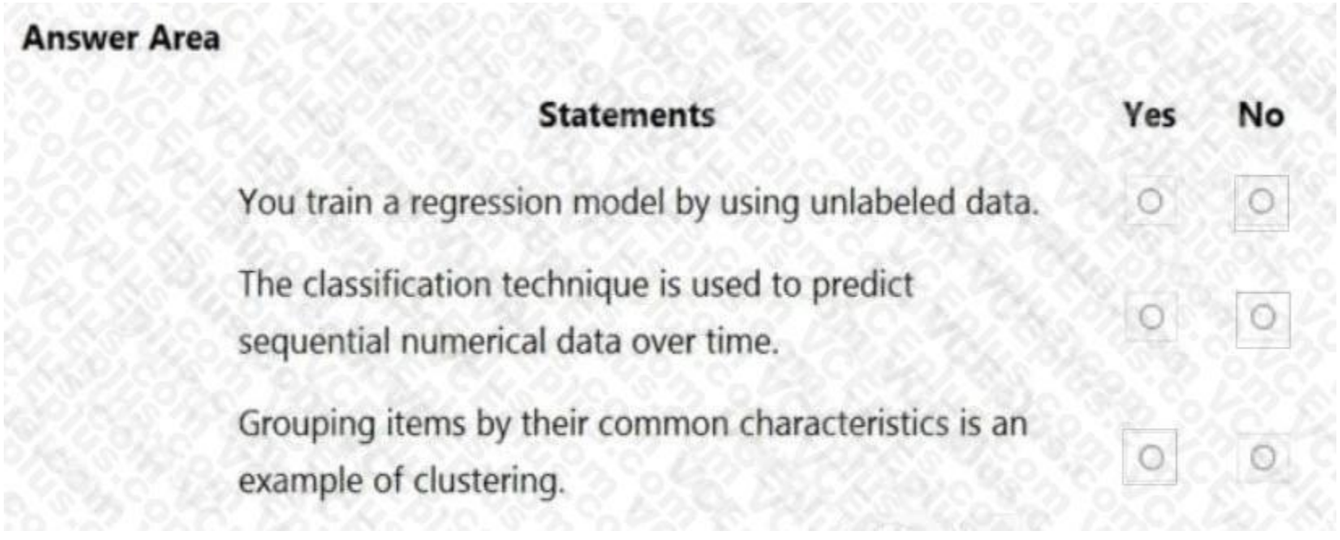
Answer Area:



Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/azure/machine-learning/component-reference/filter-based-feature-selection

QUESTION 114
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area:

Answer Area

Statements	Yes	No
You train a regression model by using unlabeled data.	○	○
The classification technique is used to predict sequential numerical data over time.	○	○
Grouping items by their common characteristics is an example of clustering.	○	○

Section:
Explanation:
Reference:
https://docs.microsoft.com/en-us/learn/modules/create-regression-model-azure-machine-learning-designer/5-create-training-pipeline https://docs.microsoft.com/en-us/learn/modules/create-classification-model-azure-machine-learningdesigner/introduction https://docs.microsoft.com/en-us/learn/modules/create-clustering-model-azure-machine-learningdesigner/1-introduction

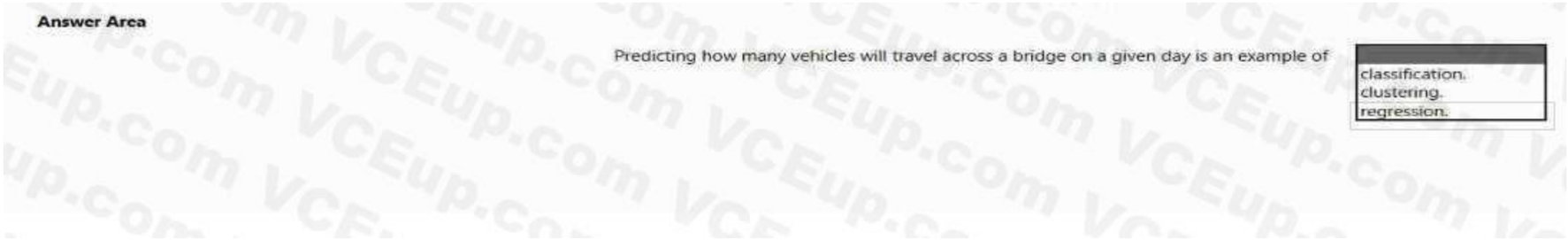
QUESTION 115
Which two actions are performed during the data ingestion and data preparation stage of an Azure Machine Learning process? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

A. Calculate the accuracy of the model.
B. Score test data by using the model.
C. Combine multiple datasets.
D. Use the model for real-time predictions.
E. Remove records that have missing values.

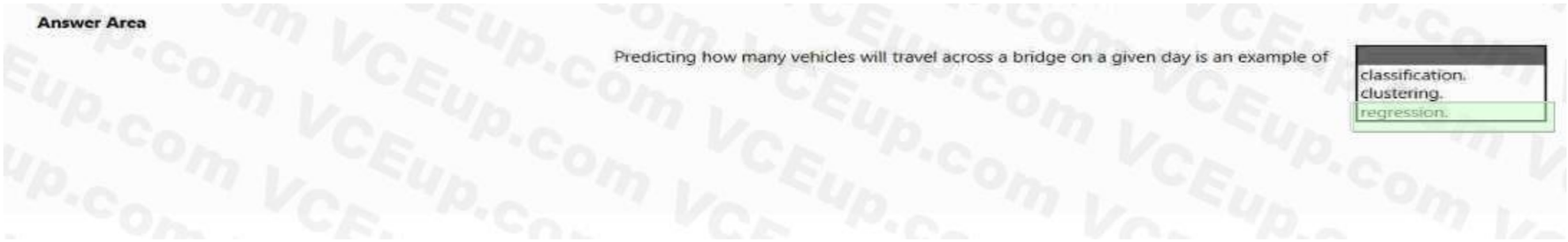
Correct Answer: C, E
Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/azure/machine-learning/concept-data-ingestion https://docs.microsoft.com/en-us/azure/architecture/data-science-process/prepare-data

QUESTION 116
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



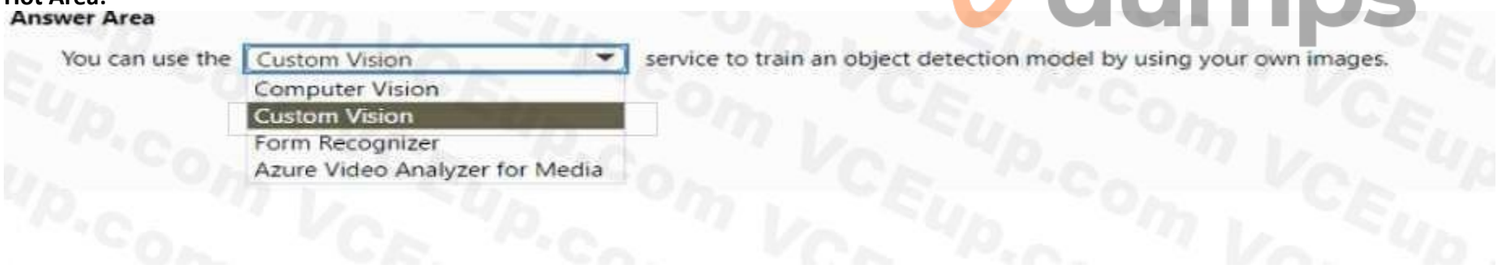
Answer Area:



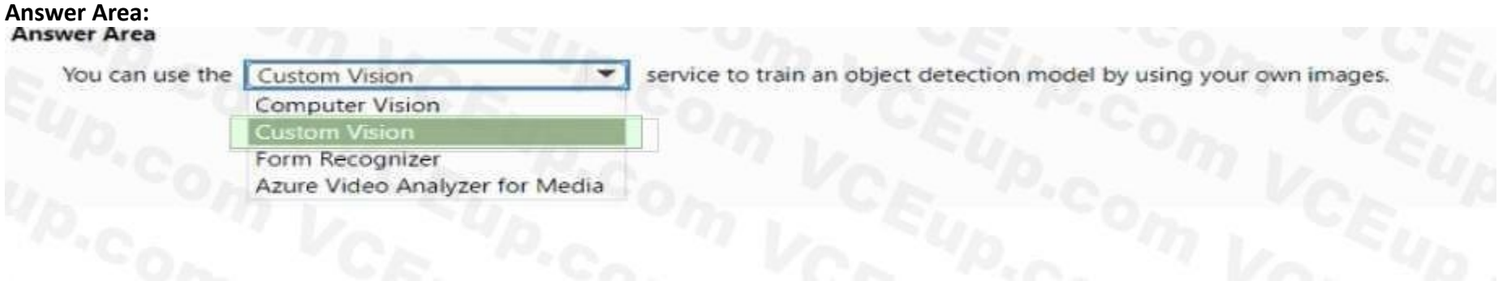
Section:
Explanation:

QUESTION 117
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:



Section:
Explanation:

QUESTION 118
Your company manufactures widgets.
You have 1.000 digital photos of the widgets.

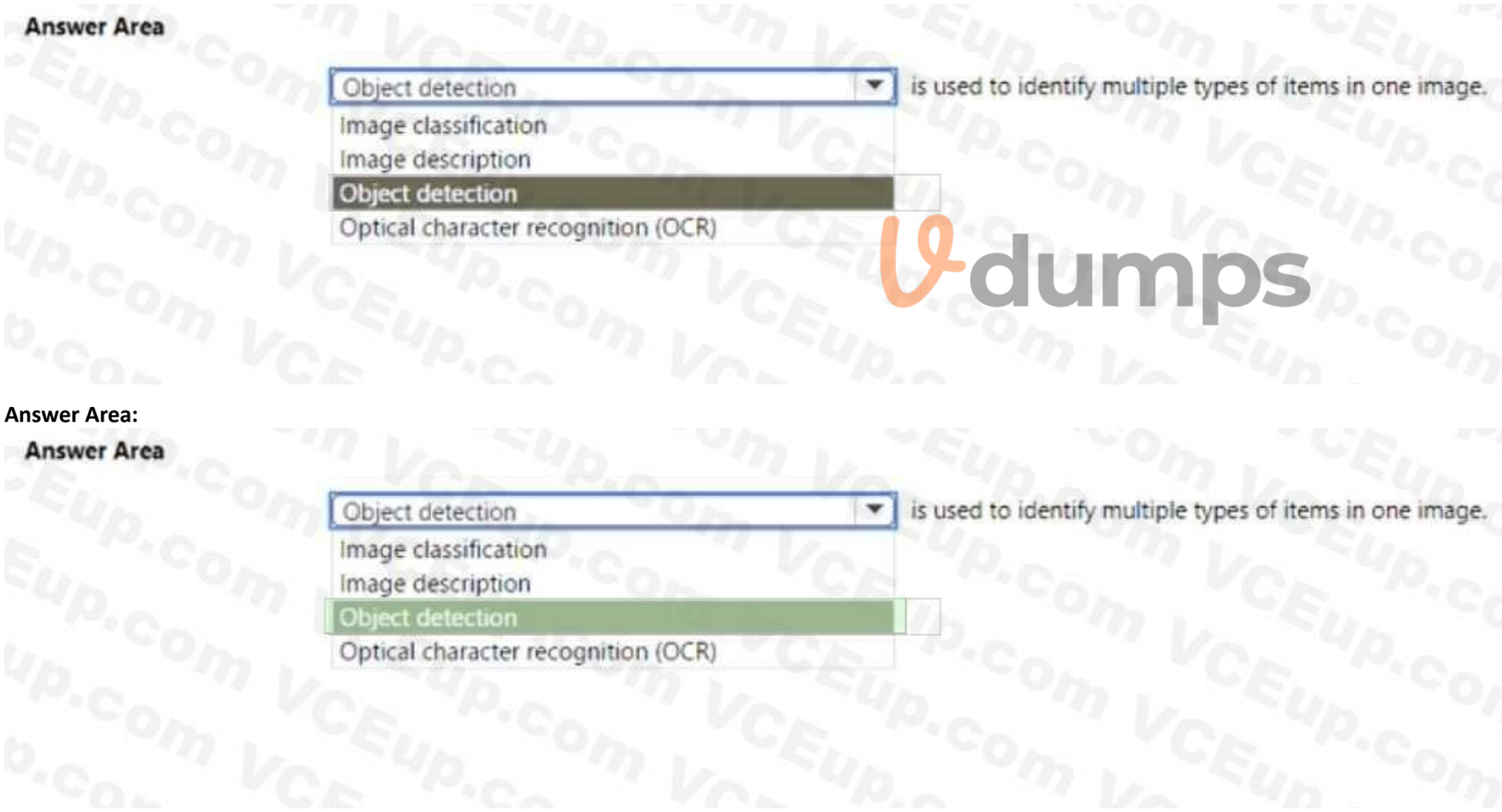
You need to identify the location of the widgets within the photos.
What should you use?

A. Computer Vision Spatial Analysis
B. Custom Vision object detection
C. Custom Vision classification
D. Computer Vision Image Analysis

Correct Answer: B
Section:

QUESTION 119
HOTSPOT
Select the answer that correctly completes the sentence

Hot Area:



Answer Area:

Section:
Explanation:

QUESTION 120
HOTSPOT
Select the answer that correctly completes the sentence

Hot Area:

Answer Area

Ensuring an AI system does not provide a prediction when important fields contain unusual or missing values is [a privacy and security ▾] principle for responsible AI.

- an inclusiveness
- a privacy and security
- a reliability and safety
- a transparency

Answer Area:

Answer Area

Ensuring an AI system does not provide a prediction when important fields contain unusual or missing values is [a privacy and security ▾] principle for responsible AI.

- an inclusiveness
- a privacy and security
- a reliability and safety
- a transparency

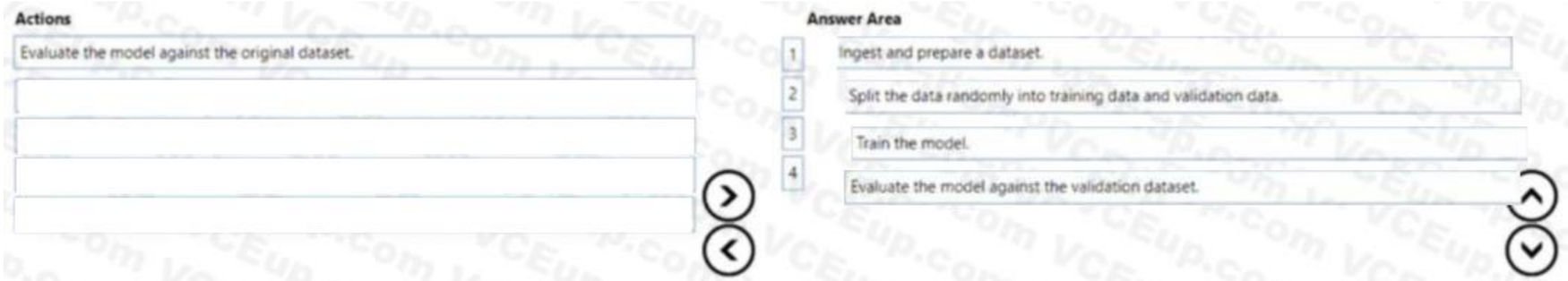
Section:
Explanation:

QUESTION 121
DRAG DROP
You plan to deploy an Azure Machine Learning model by using the Machine Learning designer.
Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Evaluate the model against the original dataset.	1
Ingest and prepare a dataset.	2
Split the data randomly into training data and validation data.	3
Train the model.	4
Evaluate the model against the validation dataset.	

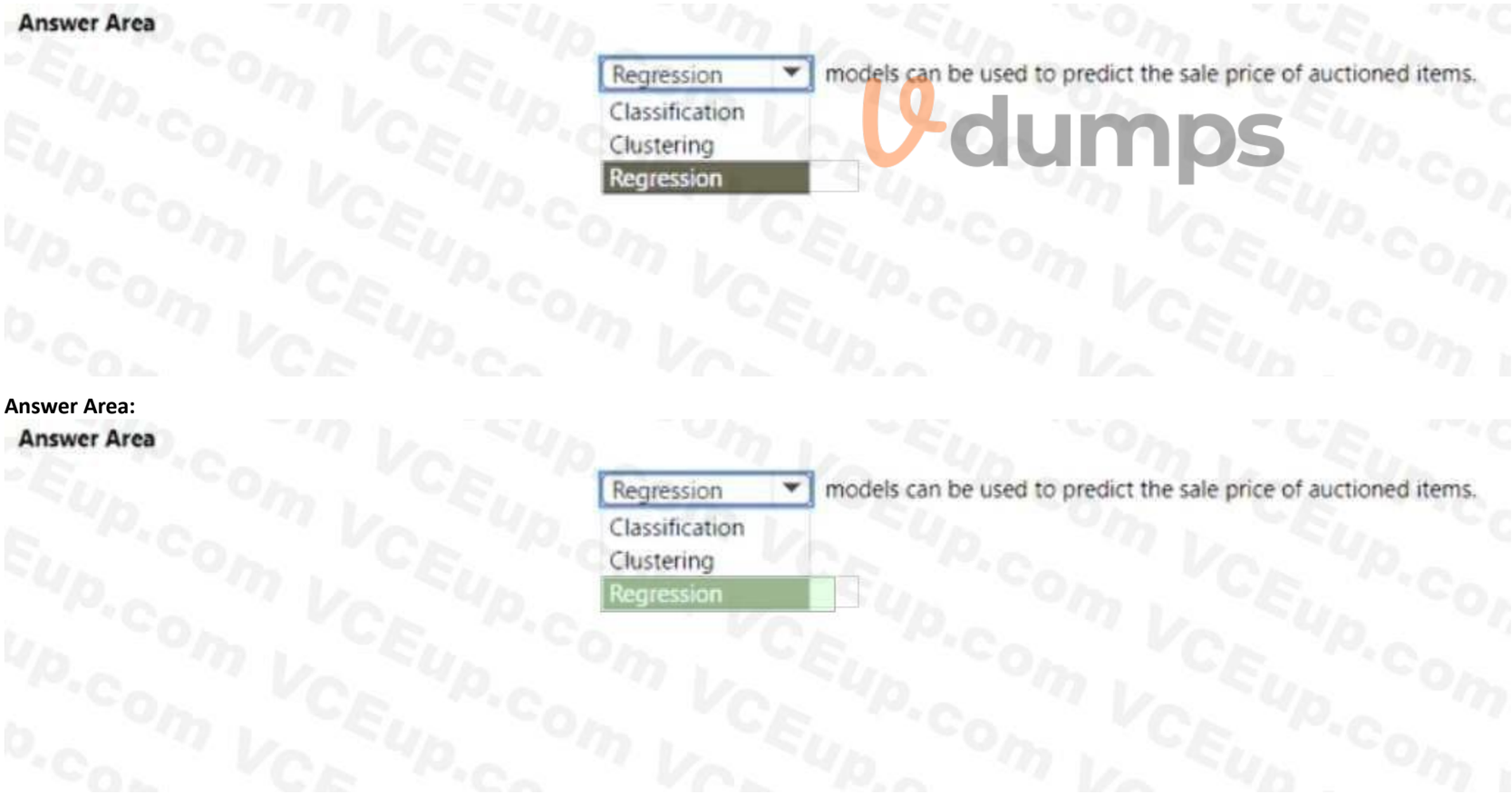
Correct Answer:



Section:
Explanation:

QUESTION 122
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:

Section:
Explanation:

QUESTION 123
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area

Using Recency, Frequency, and Monetary (RFM) values to identify segments of a customer base is an example of [classification.]

- clustering.
- regression.
- classification.
- regularization.

Answer Area:

Answer Area

Using Recency, Frequency, and Monetary (RFM) values to identify segments of a customer base is an example of [classification.]

- clustering.
- regression.
- classification.
- regularization.

Section:
Explanation:

QUESTION 124
For which two workloads can you use computer vision? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. creating photorealistic images by using three-dimensional models
B. assigning the color pixels in an image to object names
C. describing the contents of an image
D. detecting inconsistencies and anomalies in a stream of data
E. creating visual representations of numerical data

Correct Answer: B, C
Section:

QUESTION 125
You have a website that includes customer reviews.

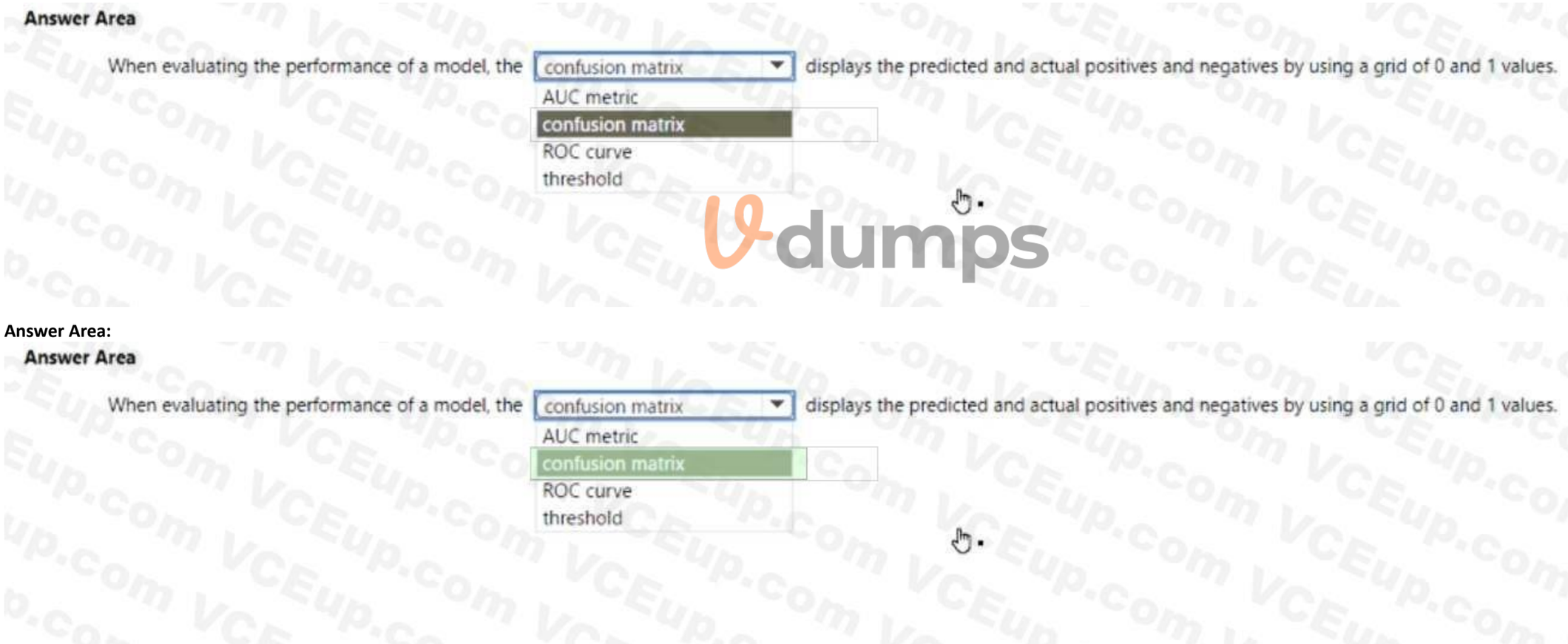
You need to store the reviews in English and present the reviews to users in their respective language by recognizing each users geographical location. Which type of natural language processing workload should you use?

A. translation
B. language modeling
C. key phrase extraction
D. speech recognition

Correct Answer: C
Section:

QUESTION 126
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:

Section:
Explanation:

QUESTION 127
You have an Internet of Things (IoT) device that monitors engine temperature.
The device generates an alert if the engine temperature deviates from expected norms.
Which type of AI workload does the device represent?

A. natural language processing (NLP)
B. computer vision
C. anomaly detection
D. knowledge mining

Correct Answer: C
Section:

QUESTION 128
You need to create a clustering model and evaluate the model by using Azure Machine Learning designer. What should you do?

A. Split the original dataset into a dataset for features and a dataset for labels. Use the features dataset for evaluation.
B. Split the original dataset into a dataset for training and a dataset for testing. Use the training dataset for evaluation.
C. Split the original dataset into a dataset for training and a dataset for testing. Use the testing dataset for evaluation.
D. Use the original dataset for training and evaluation.

Correct Answer: C
Section:

QUESTION 129
HOTSPOT
For each of the following statements, select Yes if the statement is True. Otherwise, select No. NOTE:
Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A smart device in the home that responds to questions such as "When is my next appointment?" is an example of conversational AI.	○	○
An interactive webchat feature on a company website can be implemented by using Azure Bot Service.	○	○
Automatically generating captions for pre-recorded videos is an example of conversational AI.	○	○

Answer Area:

Answer Area

Statements	Yes	No
A smart device in the home that responds to questions such as "When is my next appointment?" is an example of conversational AI.	○	○
An interactive webchat feature on a company website can be implemented by using Azure Bot Service.	○	○
Automatically generating captions for pre-recorded videos is an example of conversational AI.	○	○

Section:
Explanation:

QUESTION 130
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:
Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A bot that responds to queries by internal users is an example of a natural language processing workload.	○	○
A mobile application that displays images relating to an entered search term is an example of a natural language processing workload.	○	○
A web form used to submit a request to reset a password is an example of a natural language processing workload.	○	○

Answer Area:

Answer Area

Statements	Yes	No
A bot that responds to queries by internal users is an example of a natural language processing workload.	○	○
A mobile application that displays images relating to an entered search term is an example of a natural language processing workload.	○	○
A web form used to submit a request to reset a password is an example of a natural language processing workload.	○	○

Section:
Explanation:

QUESTION 131
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

An AI solution that helps photographers take better portrait photographs by providing feedback on exposure, noise, and occlusion is an example of facial [detection. ▾]

- analysis.
- detection.
- recognition.

Answer Area:

Answer Area

An AI solution that helps photographers take better portrait photographs by providing feedback on exposure, noise, and occlusion is an example of facial [detection.] (analysis. / detection. / recognition.)

Section:
Explanation:

QUESTION 132
Which statement is an example of a Microsoft responsible AJ principle?

A. AI systems must use only publicly available data.
B. AI systems must protect the interests of the company
C. AI systems must be understandable.
D. AI systems must keep personal details public

Correct Answer: C
Section:

QUESTION 133
Which type of natural language processing (NLP) entity is used to identify a phone number?

A. regular expression
B. machine-learned
C. list
D. Pattern-any

Correct Answer: C
Section:

QUESTION 134
You need to implement a pre-built solution that will identify well-known brands in digital photographs. Which Azure AI sen/tee should you use?

A. Face
B. Custom Vision
C. Computer Vision

D. Form Recognizer

Correct Answer: C
Section:

QUESTION 135
HOTSPOT
For each of the following statements. select Yes if the statement is true. Otherwise, select No. NOTE;
Each correct selection is worth one point

Hot Area:

Statements	Yes	No
The Custom Vision service can be used to detect objects in an image.		
The Custom Vision service requires that you provide your own data to train the model.		
The Custom Vision service can be used to analyze video files.		

Answer Area:

Statements	Yes	No
The Custom Vision service can be used to detect objects in an image.		
The Custom Vision service requires that you provide your own data to train the model.		
The Custom Vision service can be used to analyze video files.		

Section:
Explanation:

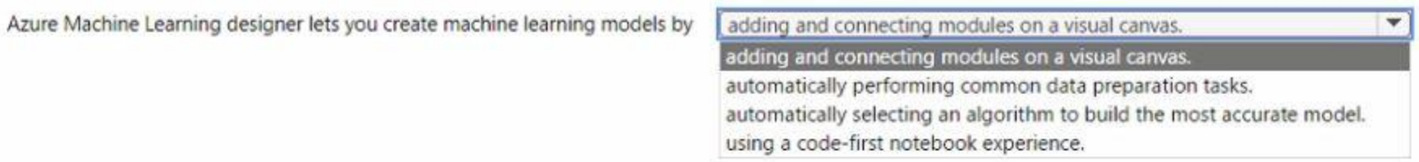
QUESTION 136
You need to identify street names based on street signs in photographs.
Which type of computer vision should you use?

A. object detection
B. optical character recognition (OCR)
C. image classification
D. facial recognition

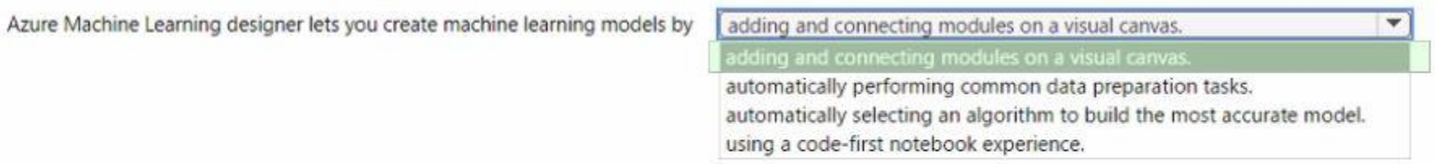
Correct Answer: C
Section:

QUESTION 137
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:



Section:
Explanation:

QUESTION 138
You need to reduce the load on telephone operators by implementing a Chabot to answer simple questions with predefined answers.
Which two Al services should you use to achieve the goal? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

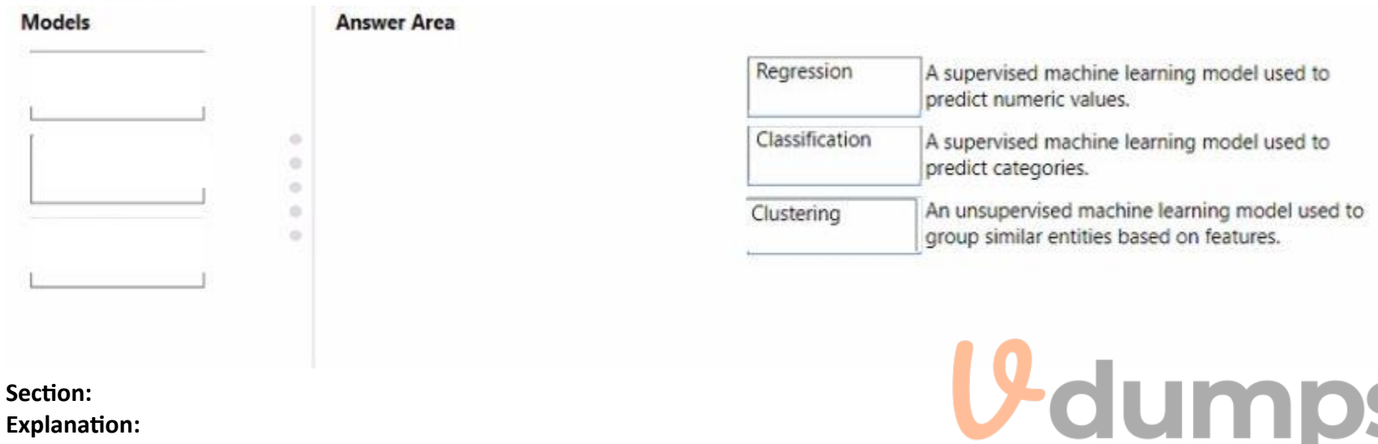
A. Azure 8ol Service
B. Azure Machine Learning
C. Translator
D. Language Service

Correct Answer: A, D
Section:

QUESTION 139
DRAG DROP
Match the machine learning models to the appropriate deceptions.
To answer, drag the appropriate model from the column on the left to its description on the right Each model may be used once, more than once, or not at all.
NOTE: Each correct match is worth one point.

Select and Place:

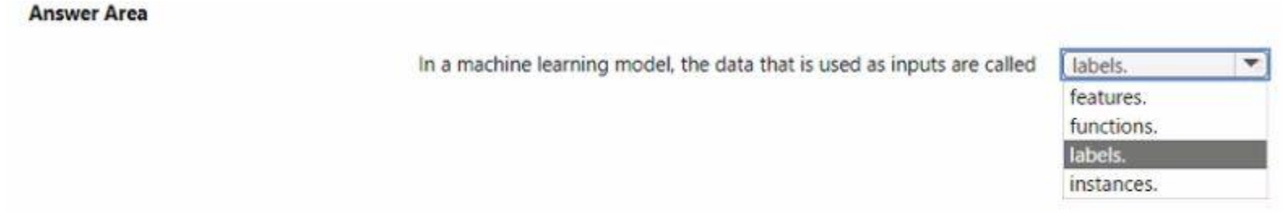
Correct Answer:



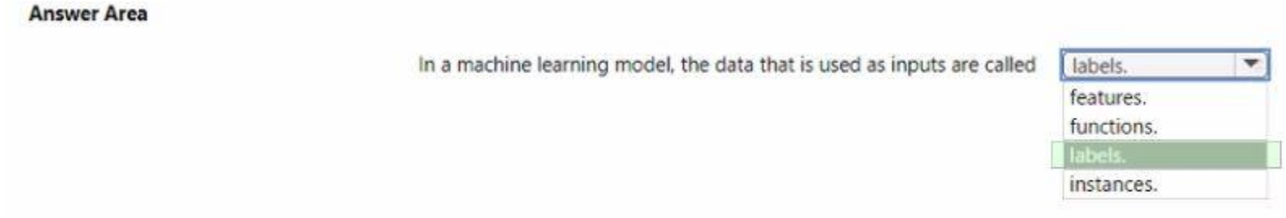
Section:
Explanation:

QUESTION 140
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:



Section:
Explanation:

QUESTION 141
During the process of Machine Learning, when should you review evaluation metrics?

A. After you clean the data.
B. Before you train a model.
C. Before you choose the type of model.
D. After you test a model on the validation data.

Correct Answer: D
Section:

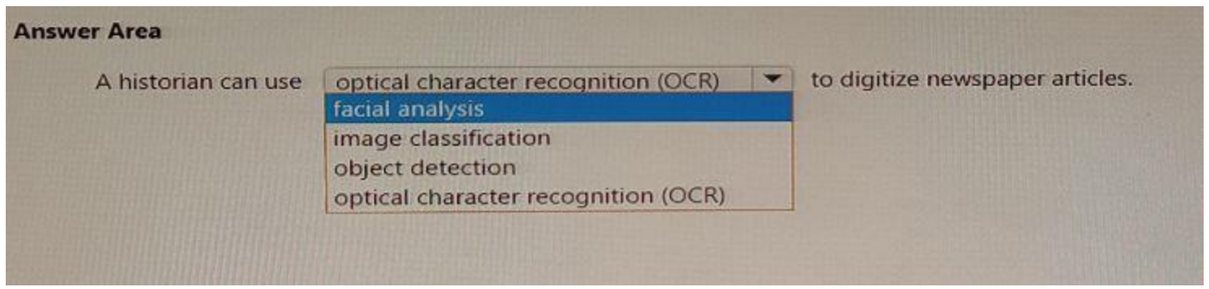
QUESTION 142
Which Azure Cognitive Services service can be used to identify documents that contain sensitive information?

A. Custom Vision
B. Conversational Language Understanding
C. Form Recognizer

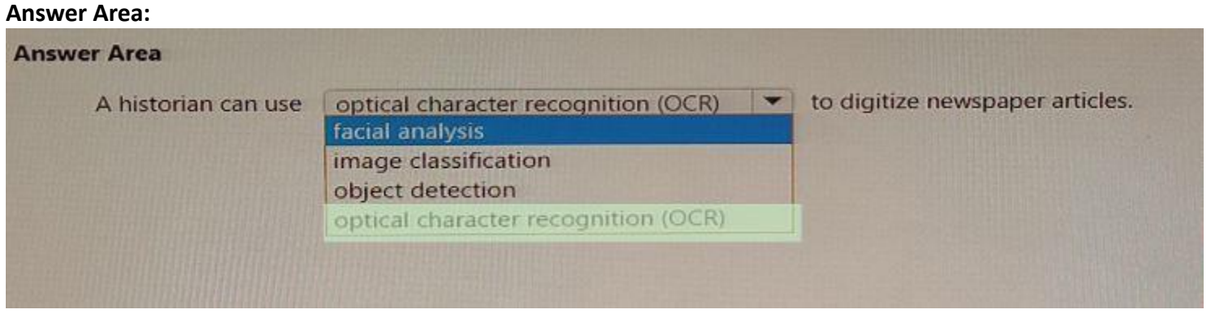
Correct Answer: C
Section:

QUESTION 143
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:



Section:

Explanation:

QUESTION 144
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area:

Section:
Explanation:

QUESTION 145
You have a bot that identifies the brand names of products in images of supermarket shelves.
Which service does the bot use?

A. AI enrichment for Azure Search capabilities
B. Computer Vision Image Analysis capabilities
C. Custom Vision Image Classification capabilities
D. Language understanding capabilities

Correct Answer: B
Section:

QUESTION 146
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area

Detecting unusual temperature fluctuations for a large machine is an example of [an anomaly detection workload.]
- a computer vision workload.
- a knowledge mining workload.
- a natural language processing (NLP) workload.
- an anomaly detection workload.

Answer Area:

Answer Area

Detecting unusual temperature fluctuations for a large machine is an example of [an anomaly detection workload.]
- a computer vision workload.
- a knowledge mining workload.
- a natural language processing (NLP) workload.
- an anomaly detection workload.

Section:
Explanation:

QUESTION 147
HOTSPOT
You have an app that identifies birds in images. The app performs the following tasks:
* Identifies the location of the birds in the image
* Identifies the species of the birds in the image
Which type of computer vision does each task use? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Locate the birds: [Object detection]
- Automated captioning
- Image classification
- Object detection
- Optical character recognition (OCR)

Identify the species of the birds: [Image classification]
- Automated captioning
- Image classification
- Object detection
- Optical character recognition (OCR)

Answer Area:

Answer Area

Locate the birds: [Object detection]
- Automated captioning
- Image classification
- Object detection
- Optical character recognition (OCR)

Identify the species of the birds: [Image classification]
- Automated captioning
- Image classification
- Object detection
- Optical character recognition (OCR)

Section:

Explanation:

QUESTION 148
HOTSPOT
To complete the sentence, select the appropriate option in the answer area.

Hot Area:

Answer Area

Data values that used to make a prediction are called [features. ▼]
- dependant variables.
- features
- identifiers.
- labels.

Answer Area:

Answer Area

Data values that used to make a prediction are called [features. ▼]
- dependant variables.
- features
- identifiers.
- labels.

Section:
Explanation:

QUESTION 149
HOTSPOT
Select the answer that correctly completes the sentence.

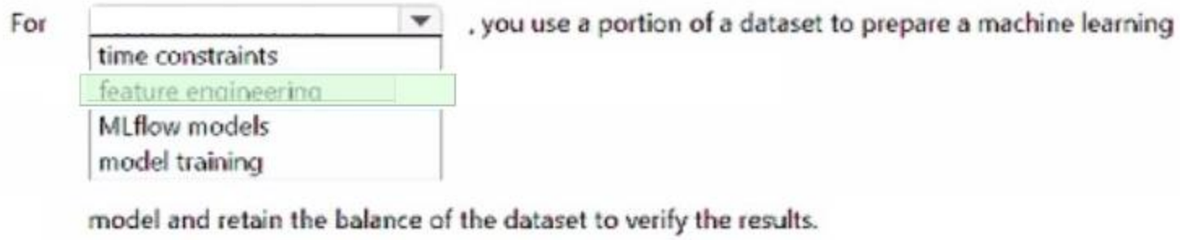
Hot Area:

Answer Area

For [▼] , you use a portion of a dataset to prepare a machine learning model and retain the balance of the dataset to verify the results.
- time constraints
- feature engineering
- MLflow models
- model training

Answer Area:

Answer Area



Section:
Explanation:

QUESTION 150
You have a natural language processing (NIP) model that was created by using data obtained without permission.
Which Microsoft principle for responsible AI does this breach?

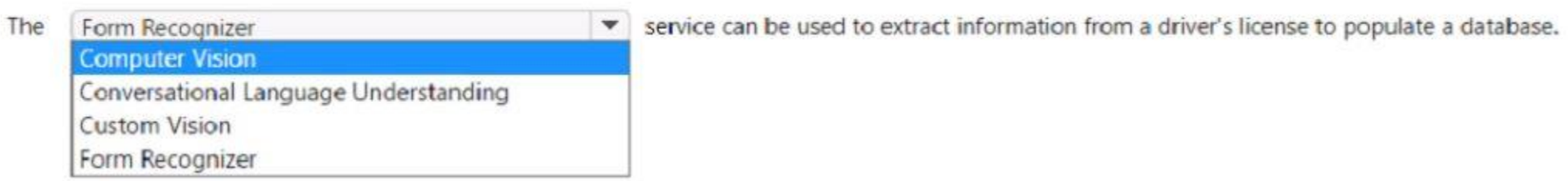
A. privacy and security
B. inclusiveness
C. transparency
D. reliability and safety

Correct Answer: C
Section:

QUESTION 151
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area



Answer Area:

Answer Area

The Form Recognizer service can be used to extract information from a driver's license to populate a database.

- Computer Vision
- Conversational Language Understanding
- Custom Vision
- Form Recognizer

Section:
Explanation:

QUESTION 152
You have an Azure Machine Learning model that uses clinical data to predict whether a patient has a disease.
You clean and transform the clinical data.
You need to ensure that the accuracy of the model can be proven.
What should you do next?

A. Train the model by using the clinical data.
B. Split the clinical data into Two datasets.
C. Train the model by using automated machine learning (automated ML).
D. Validate the model by using the clinical data.

Correct Answer: D
Section:

QUESTION 153
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE; Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Language service can identify in which language text is written.	○	○
The Language service can detect handwritten signatures in a document.	○	○
The Language service can identify companies and organizations mentioned in a document.	○	○

Answer Area:

Answer Area

Statements	Yes	No
The Language service can identify in which language text is written.	○	○
The Language service can detect handwritten signatures in a document.	○	○
The Language service can identify companies and organizations mentioned in a document.	○	○

Section:
Explanation:

QUESTION 154
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE; Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A restaurant can use a chatbot to answer queries through Cortana.	○	○
A restaurant can use a chatbot to answer inquiries about business hours from a webpage.	○	○
A restaurant can use a chatbot to automate responses to customer reviews on an external website.	○	○

Answer Area:

Answer Area

Statements	Yes	No
A restaurant can use a chatbot to answer queries through Cortana.	○	○
A restaurant can use a chatbot to answer inquiries about business hours from a webpage.	○	○
A restaurant can use a chatbot to automate responses to customer reviews on an external website.	○	○

Section:
Explanation:

QUESTION 155
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE; Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Chatbots can only be built by using custom code.	○	○
The Azure Bot Service provides services that can be used to host conversational bots.	○	○
Bots built by using the Azure Bot Service can communicate with Microsoft Teams users.	○	○

Answer Area:

Answer Area

Statements	Yes	No
Chatbots can only be built by using custom code.	○	○
The Azure Bot Service provides services that can be used to host conversational bots.	○	○
Bots built by using the Azure Bot Service can communicate with Microsoft Teams users.	○	○

Section:
Explanation:

QUESTION 156
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area

Counting the number of animals in an area based on a video feed is an example of [computer vision. ▼]
- forecasting.
- computer vision.
- knowledge mining.
- anomaly detection.

Answer Area:

Answer Area

Counting the number of animals in an area based on a video feed is an example of [computer vision. ▼]
- forecasting.
- computer vision.
- knowledge mining.
- anomaly detection.

Section:
Explanation:

QUESTION 157
HOTSPOT

Select the answer that correctly completes the sentence.

Hot Area:

Answer Area

Optical character recognition (OCR) extracts text from handwritten documents.

- Object detection
- Facial recognition
- Image classification
- Optical character recognition (OCR)

Answer Area:

Answer Area

Optical character recognition (OCR) extracts text from handwritten documents.

- Object detection
- Facial recognition
- Image classification
- Optical character recognition (OCR)

Section:
Explanation:

QUESTION 158
Which Computer Vision feature can you use to generate automatic captions for digital photographs?

A. Recognize text.
B. Describe the images.
C. Identify the areas of interest.
D. Detect objects.

Correct Answer: B
Section:

QUESTION 159
You plan to build a conversational AI solution that can be surfaced in Microsoft Teams. Microsoft Cortana, and Amazon Alex a. Which service should you use?

A. Azure Bot Service
B. Azure Cognitive Search
C. Language service
D. Speech

Correct Answer: A
Section:

QUESTION 160
Which two languages can you use to write custom code for Azure Machine Learning designer? Each correct answer presents a complete solution.
NOTE; Each correct selection is worth one point.

A. C#
B. Scala
C. Python
D. R

Correct Answer: C, D
Section:

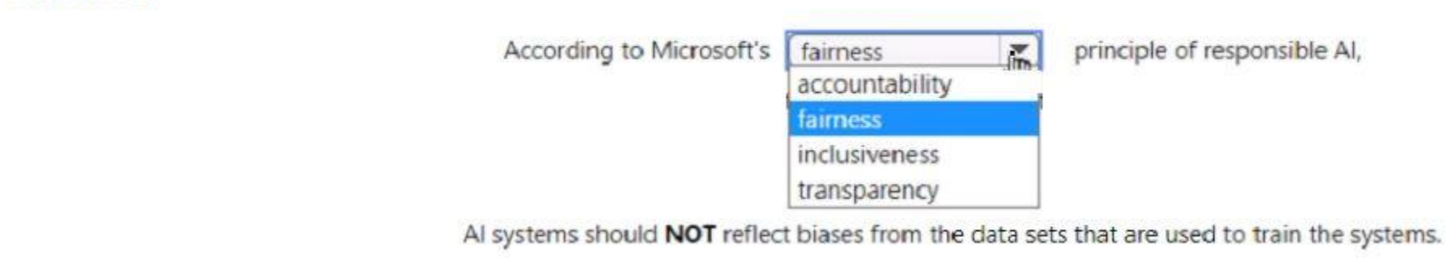
QUESTION 161
You need to predict the animal population of an area.
Which Azure Machine Learning type should you use?

A. clustering
B. classification
C. regression

Correct Answer: C
Section:

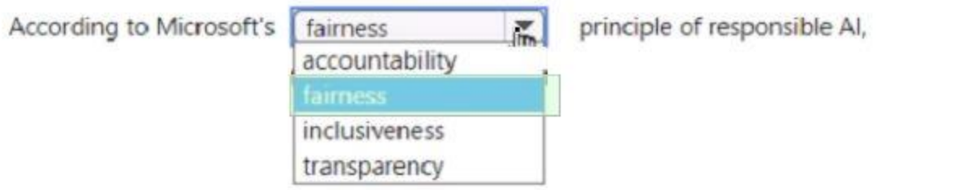
QUESTION 162
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:

Answer Area



Section:
Explanation:

QUESTION 163
Which two scenarios are examples of a natural language processing workload? Each correct answer presents a complete solution.
NOTE; Each correct selection is worth one point.

A. assembly line machinery that autonomously inserts headlamps into cars
B. a smart device in the home that responds to questions such as, 'What will the weather be like today?
C. monitoring the temperature of machinery to turn on a fan when the temperature reaches a specific threshold
D. a website that uses a knowledge base to interactively respond to users' questions

Correct Answer: B, D
Section:

QUESTION 164
You need to create a model that labels a collection of your personal digital photographs.
Which Azure AI service should you use?

A. Azure AI Language
B. Azure AI Computer Vision
C. Azure AI Document Intelligence
D. Azure AI Custom Vision

Correct Answer: B
Section:

QUESTION 165
You need to build an app that will identify celebrities in images.
Which service should you use?

A. Azure OpenAI Service
B. Azure Machine Learning
C. conversational language understanding (CLU)
D. Azure AI Vision

Correct Answer: D
Section:

QUESTION 166
You have an app that identifies the coordinates of a product in an image of a supermarket shelf.
Which service does the app use?

A. Azure AI Custom Vision object detection
B. Azure AI Computer Vision Read
C. Azure AI Computer Vision optical character recognition (OCR)
D. Azure AI Custom Vision classification

Correct Answer: A
Section:

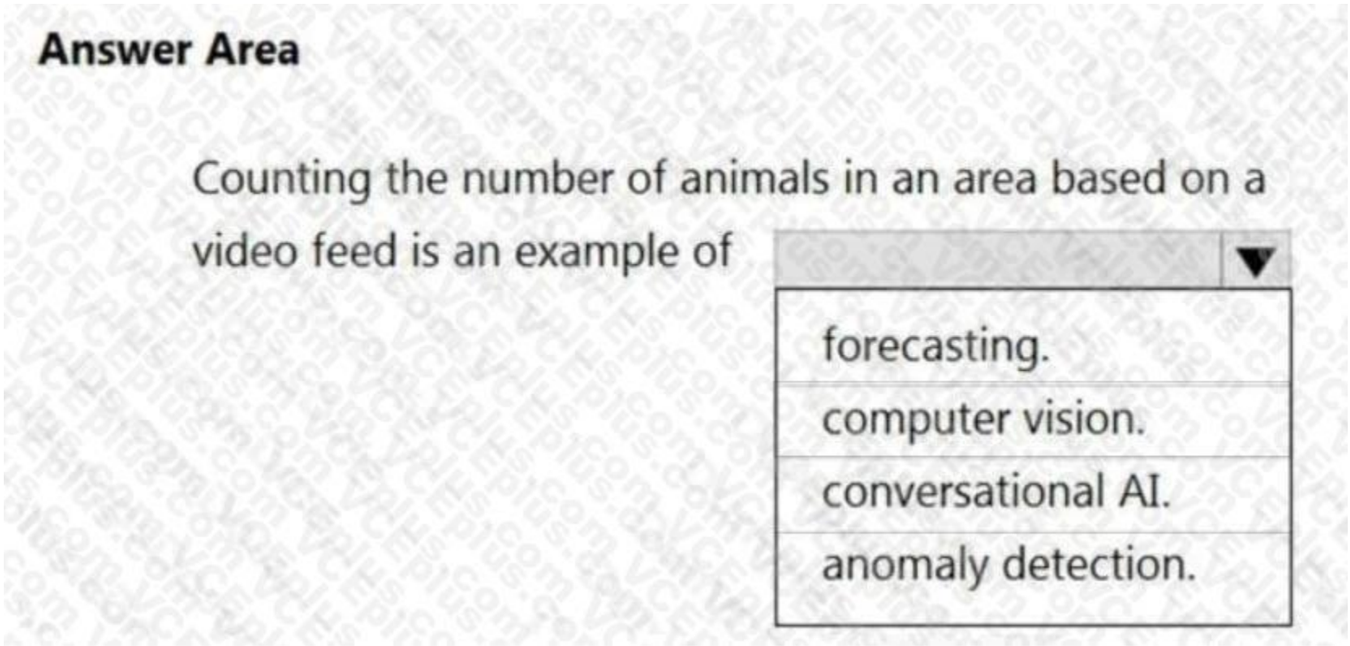
QUESTION 167
You need to convert receipts into transactions in a spreadsheet. The spreadsheet must include the date of the transaction, the merchant the total spent and any taxes paid.
Which Azure AI service should you use?

A. Face
B. Azure AI Language
C. Azure AI Document Intelligence
D. Azure AI Custom Vision

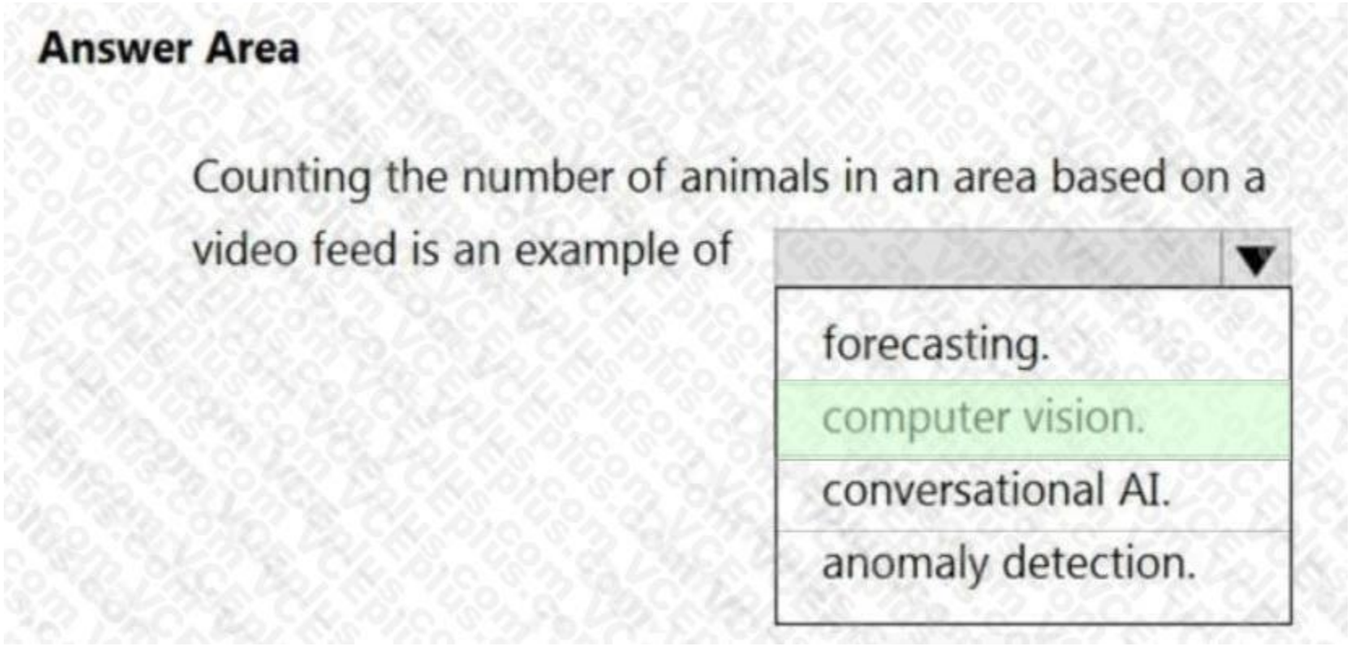
Correct Answer: C
Section:

QUESTION 168
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



Answer Area:



Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/intro-to-spatial-analysis-public-preview

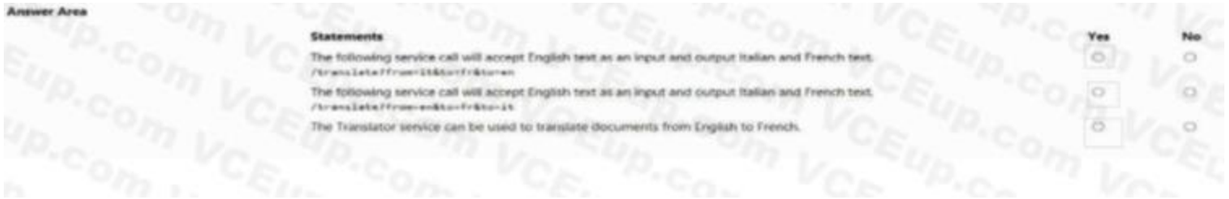
QUESTION 169
You have a knowledge base of frequently asked questions (FAQ).
You create a bot that uses the knowledge base to respond to customer requests.
You need to identify what the bot can perform without adding additional skills.
What should you identify?

A. Register customer purchases.
B. Register customer complaints.
C. Answer questions from multiple users simultaneously.
D. Provide customers with return materials authorization (RMA) numbers.

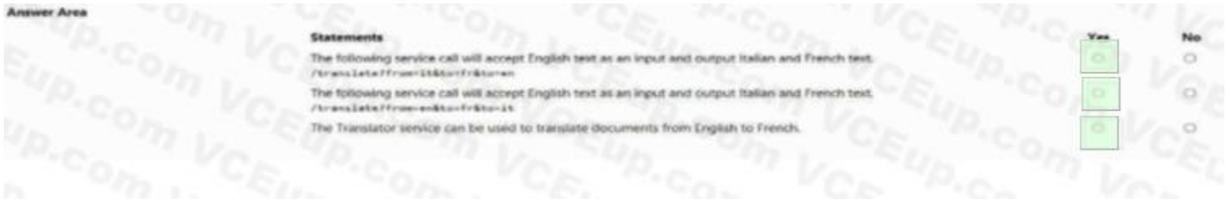
Correct Answer: C
Section:
Explanation:
Reference: https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/overview/overview

QUESTION 170
HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area:



Section:
Explanation:

QUESTION 171
HOTSPOT
You have an Azure Machine Learning model that predicts product quality. The model has a training dataset that contains 50,000 records. A sample of the data is shown in the following table.

Date	Time	Mass (kg)	Temperature (C)	Quality Test
26/02/2021	15:31:07	2.108	62.5	Pass
26/02/2021	15:31:39	2.099	62.4	Pass
26/02/2021	02:32:21	2.098	66.4	Fail

For each of the following Statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Hot Area:

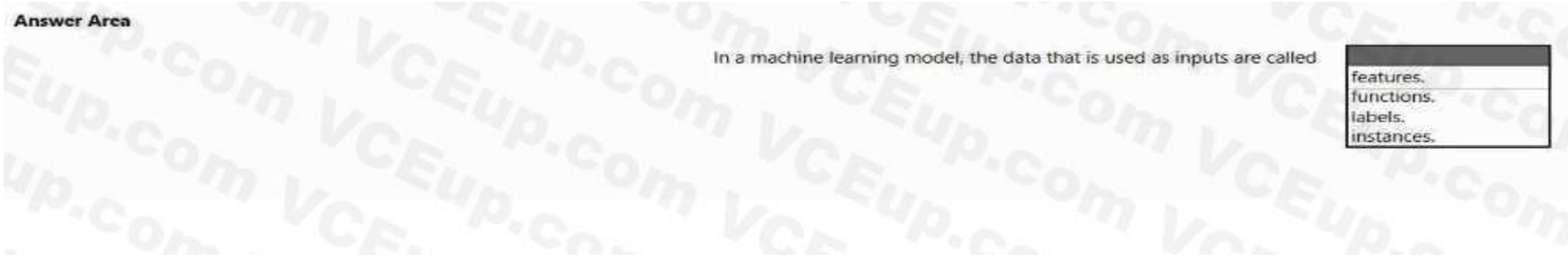
Answer Area:

Section:

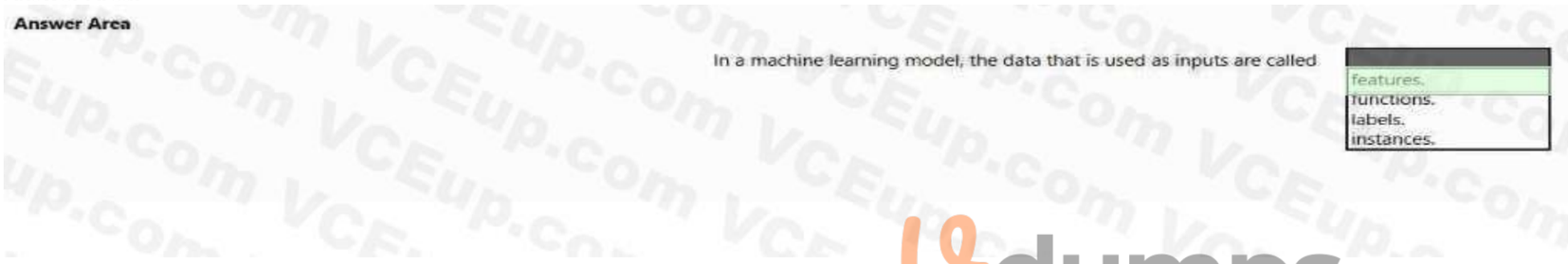
Explanation:

QUESTION 172
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:



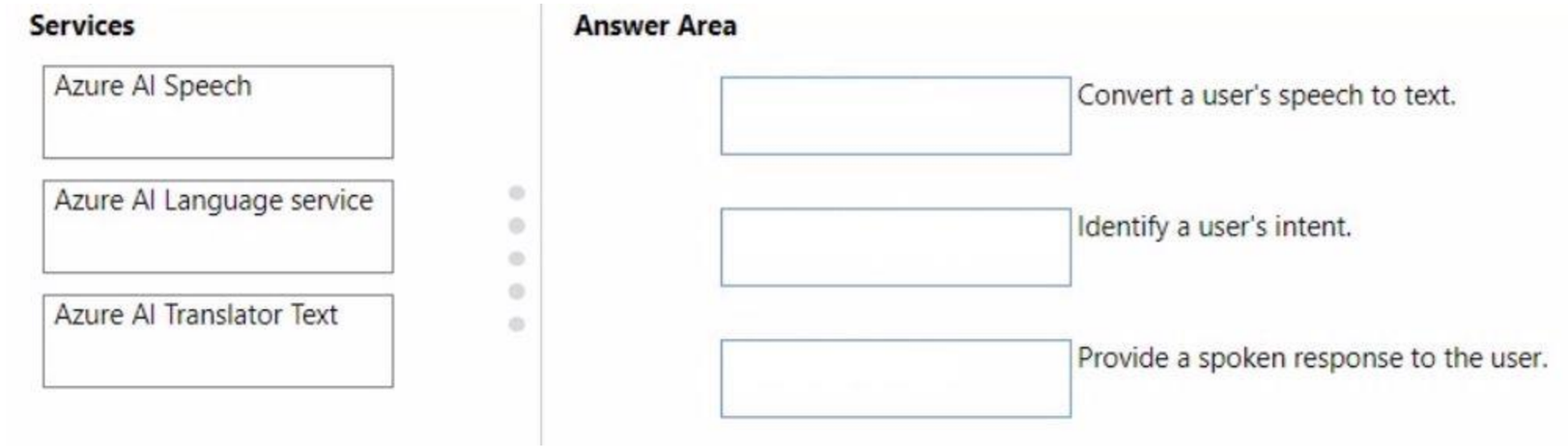
Answer Area:



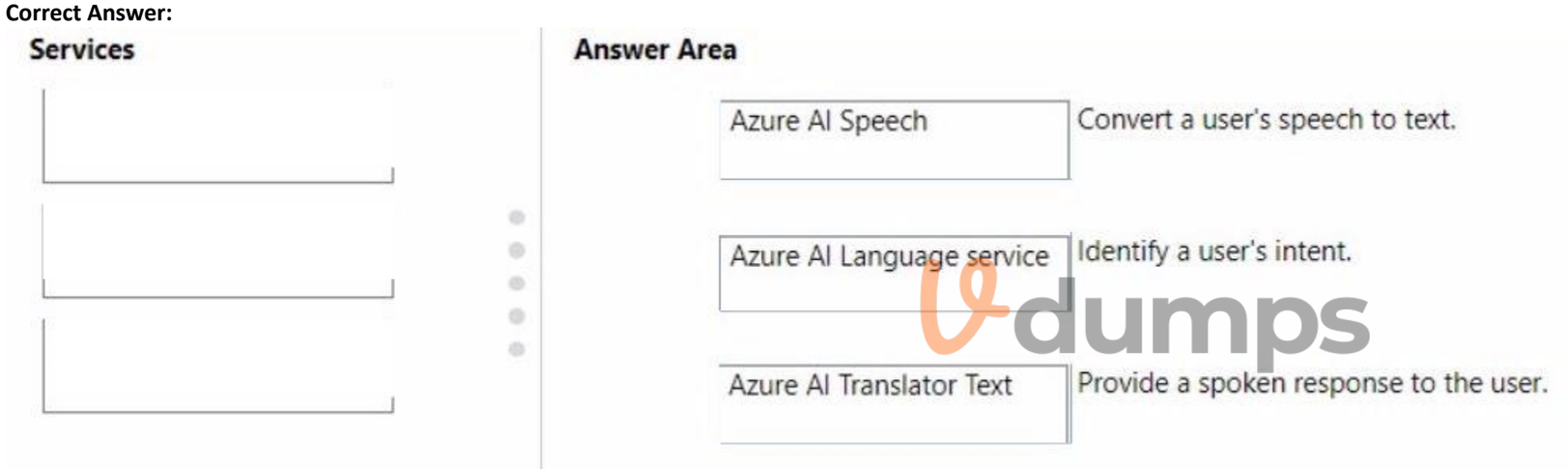
Section:
Explanation:

QUESTION 173
DRAG DROP
You plan to use Azure Cognitive Services to develop a voice controlled personal assistant app.
Match the Azure Cognitive Services to the appropriate tasks.
To answer, drag the appropriate service from the column on the left to its description on the right Each service may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:



Correct Answer:



Section:
Explanation:

QUESTION 174
DRAG DROP
Match the tasks to the appropriate machine learning models.
To answer, drag the appropriate model from the column on the left to its scenario on the right. Each model may be used once, more than once, or not at all.
NOTE: Each correct selection is worth one point.

Select and Place:

Models

Classification

Clustering

Regression

Answer Area

	Assign categories to passengers based on demographic data.
	Predict the amount of consumed fuel based on flight distance.
	Predict whether a passenger will miss their flight based on demographic data.

Correct Answer:

Models

Answer Area

Classification	Assign categories to passengers based on demographic data.
Regression	Predict the amount of consumed fuel based on flight distance.
Clustering	Predict whether a passenger will miss their flight based on demographic data.

Section:
Explanation:

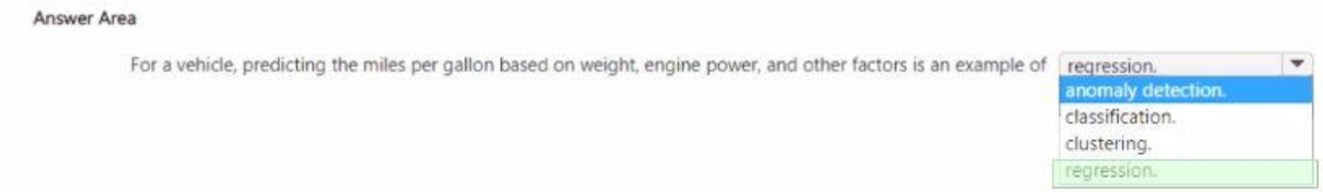
QUESTION 175
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area

For a vehicle, predicting the miles per gallon based on weight, engine power, and other factors is an example of [regression. / anomaly detection. / classification. / clustering. / regression.]

Answer Area:



Section:
Explanation:

QUESTION 176
Which two resources can you use to analyze code and generate explanations of code function and code comments? Each correct answer presents a complete solution.
NOTE: Each correct answer is worth one point.

A. the Azure OpenAI DALL-E model
B. the Azure OpenAI Whisper model
C. the Azure OpenAI GPT-4 model
D. the GitHub Copilot service

Correct Answer: A, C
Section:

QUESTION 177
HOTSPOT
Select the answer that correctly completes the sentence.

Hot Area:

Answer Area:

Section:
Explanation:

QUESTION 178
You need to count the number of animals in a photograph. Which type of computer vision should you use?

A. facial detection
B. image classification

C. optical character recognition (OCR)
D. object detection

Correct Answer: D
Section: