Exam Topic Breakdown

Exam Topic	Number of Questions
Topic 1 : Describe Artificial Intelligence workloads and considerations	23
Topic 2 : Describe fundamental principles of machine learning on Azure	38
Topic 3 : Describe features of computer vision workloads on Azure	17
Topic 4 : Describe features of Natural Language Processing (NLP) workloads on Azure	26
Topic 5 : Describe features of conversational AI workloads on Azure	137
TOTAL	241

Topic 1, Describe Artificial Intelligence workloads and considerations

Question #:1 - (Exam Topic 1)

You are building an AI system.

Which task should you include to ensure that the service meets the Microsoft transparency principle for responsible AI?

A. Ensure that all visuals have an associated text that can be read by a screen reader.

B. Enable autoscaling to ensure that a service scales based on demand.

C. Provide documentation to help developers debug code.

D. Ensure that a training dataset is representative of the population.

Answer: C

Reference:

https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

Question #:2 - (Exam Topic 1)

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

Answer: B

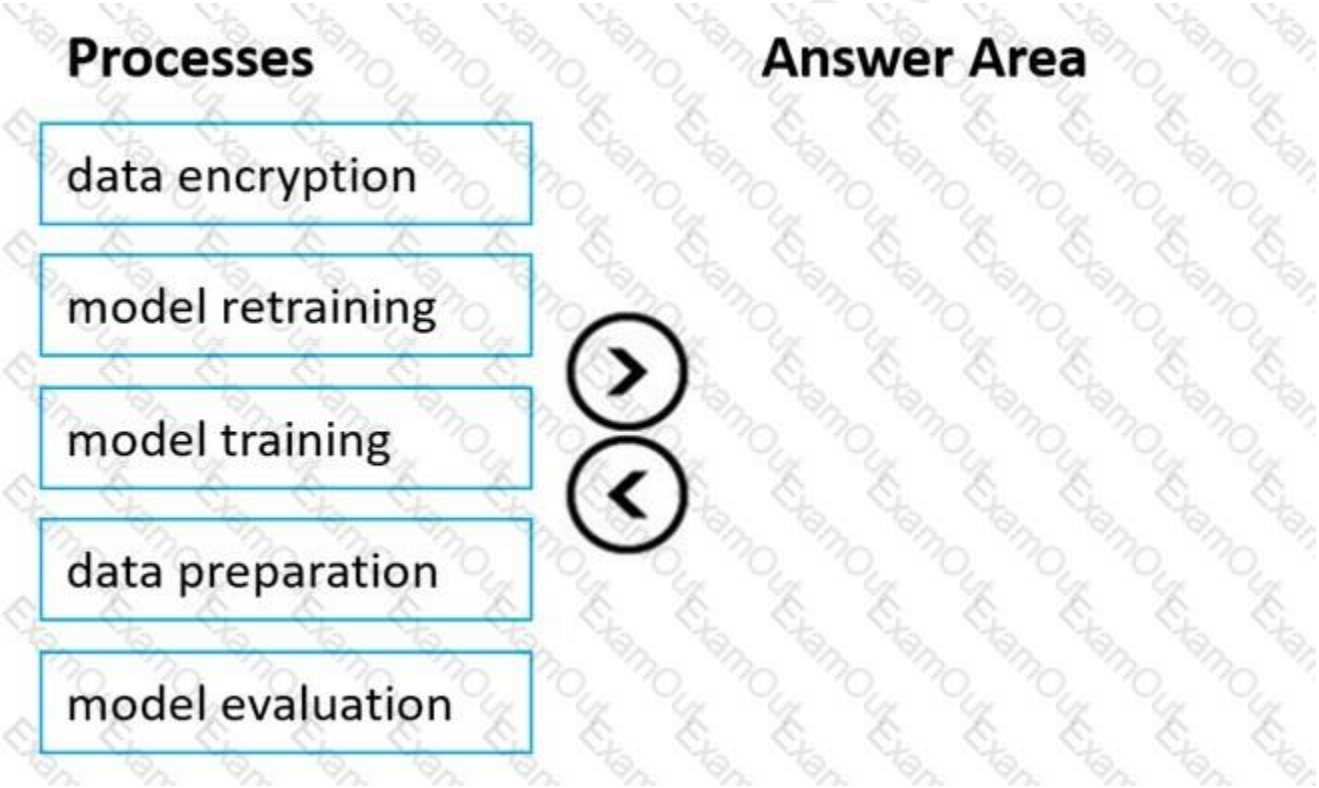
Reference:

https://docs.microsoft.com/en-us/azure/cognitive-services/face/overview

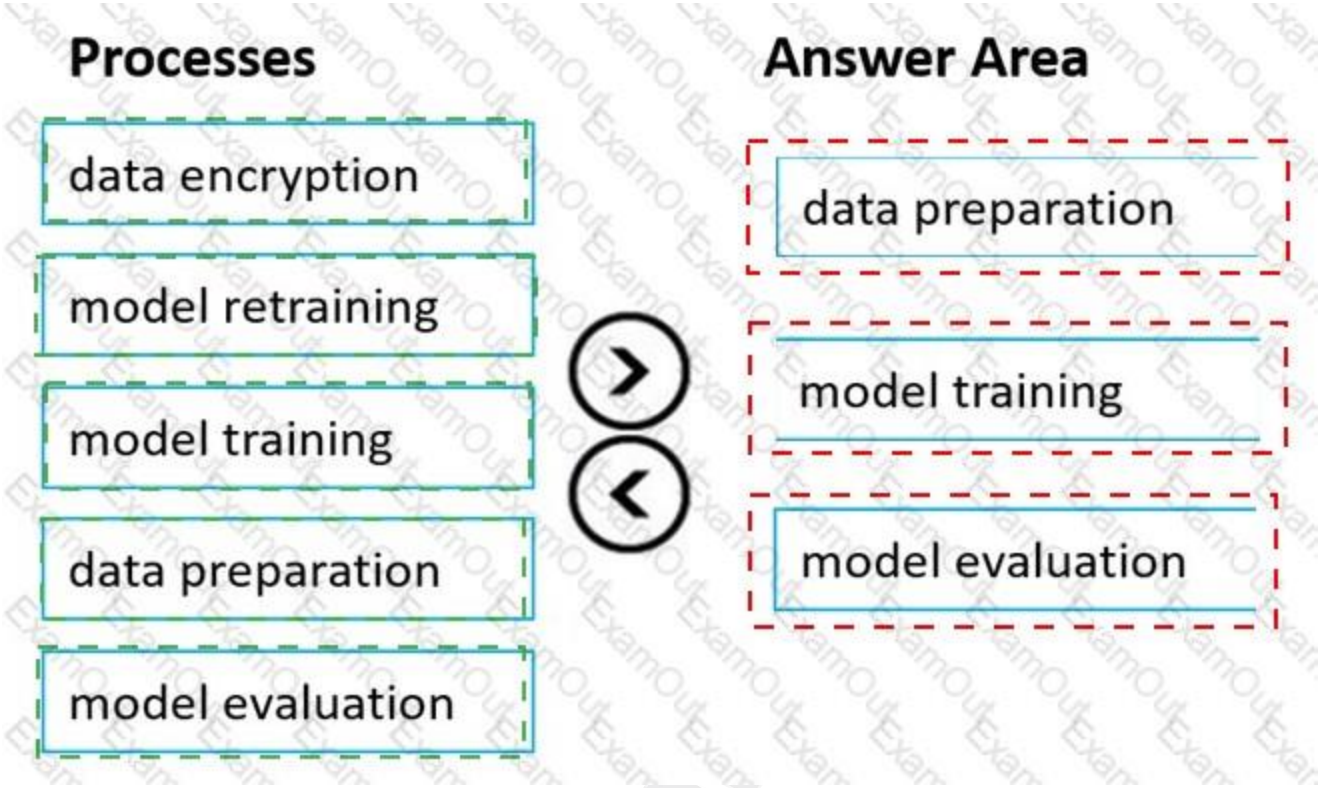
Question #:3 - (Exam Topic 1)

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.

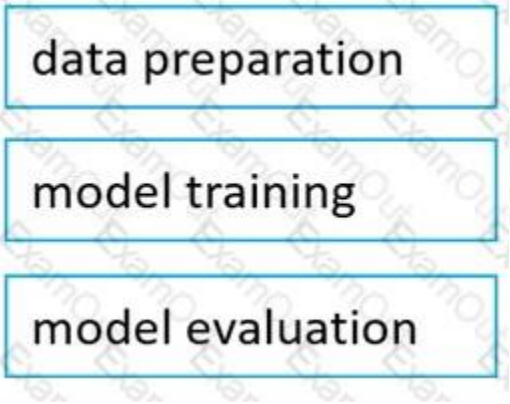


Answer:



Explanation

Graphical user interface, text, application, chat or text message Description automatically generated



Reference:

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

Question #:4 - (Exam Topic 1)

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

NOTE: Each correct selection is worth one point.

Statements	Yes	No
Providing an explanation of the outcome of a credit loan application is an example of the Microsoft transparency principle for responsible AI.	O	O
A triage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety principle for responsible AI.	O	O
An AI solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible AI.	O	O

Answer:

Statements	Yes	No
Providing an explanation of the outcome of a credit loan application is an example of the Microsoft transparency principle for responsible AI.	O	O
A triage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety principle for responsible AI.	O	O
An AI solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible AI.	O	O

Explanation

Text Description automatically generated

Statements	Yes	No
Providing an explanation of the outcome of a credit loan application is an example of the Microsoft transparency principle for responsible AI.	O	O
A triage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety principle for responsible AI.	O	O
An AI solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible AI.	O	O

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

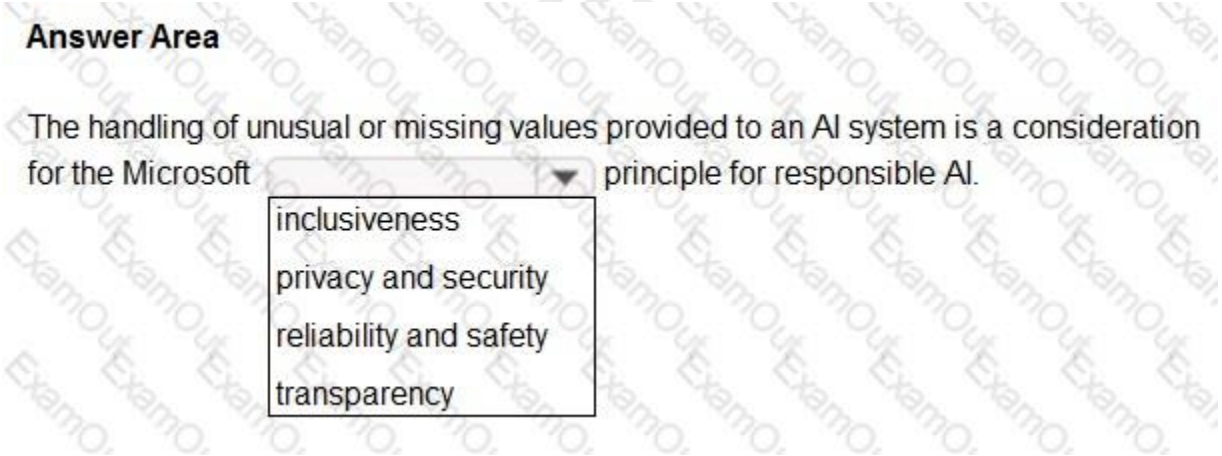
Inclusiveness mandates that AI should consider all human races and experiences, and inclusive design practices can help developers to understand and address potential barriers that could unintentionally exclude people. Where possible, speech-to-text, text-to-speech, and visual recognition technology 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 #:5 - (Exam Topic 1)

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



Answer:

Answer Area

The handling of unusual or missing values provided to an AI system is a consideration for the Microsoft [inclusiveness / privacy and security / reliability and safety / transparency] principle for responsible AI.

Explanation

Reliability & Safety

https://en.wikipedia.org/wiki/Tay_(bot)

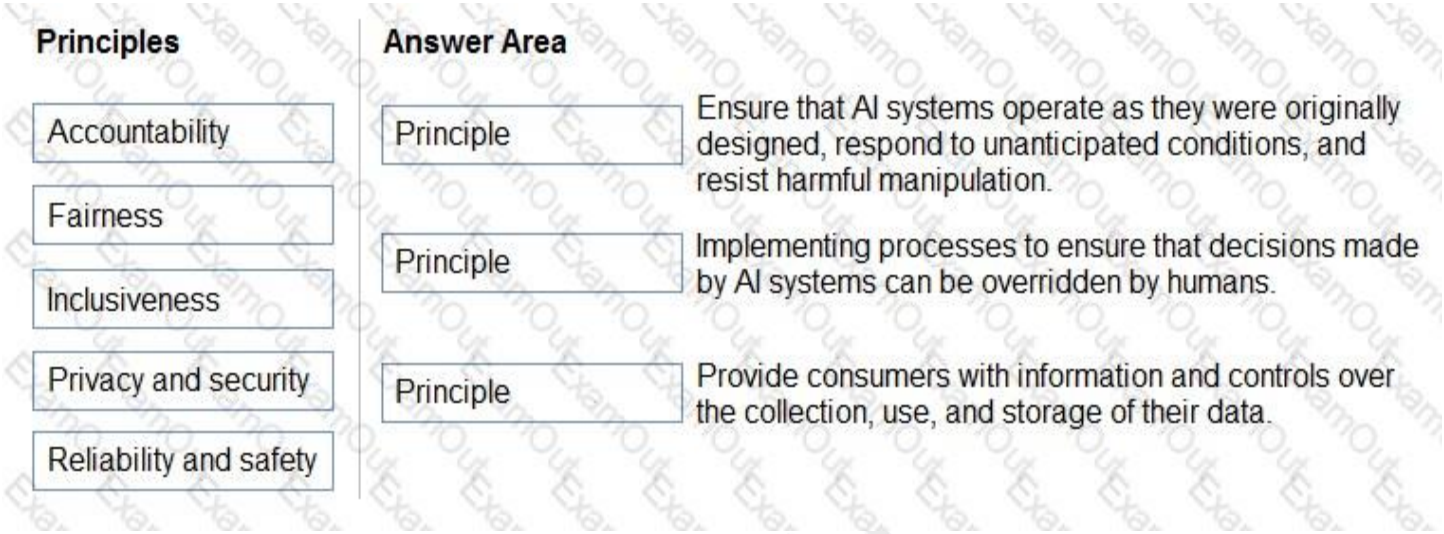
“To build trust, it's critical that AI systems operate reliably, safely, and consistently under normal circumstances and in unexpected conditions. These systems should be able to operate as they were originally designed, respond safely to unanticipated conditions, and resist harmful manipulation. It's also important to be able to verify that these systems are behaving as intended under actual operating conditions. How they behave and the variety of conditions they can handle reliably and safely largely reflects the range of situations and circumstances that developers anticipate during design and testing. We believe that rigorous testing is essential during system development and deployment to ensure AI systems can respond safely in unanticipated situations and edge cases, don't have unexpected performance failures, and don't evolve in ways that are inconsistent with original expectations”

Question #:6 - (Exam Topic 1)

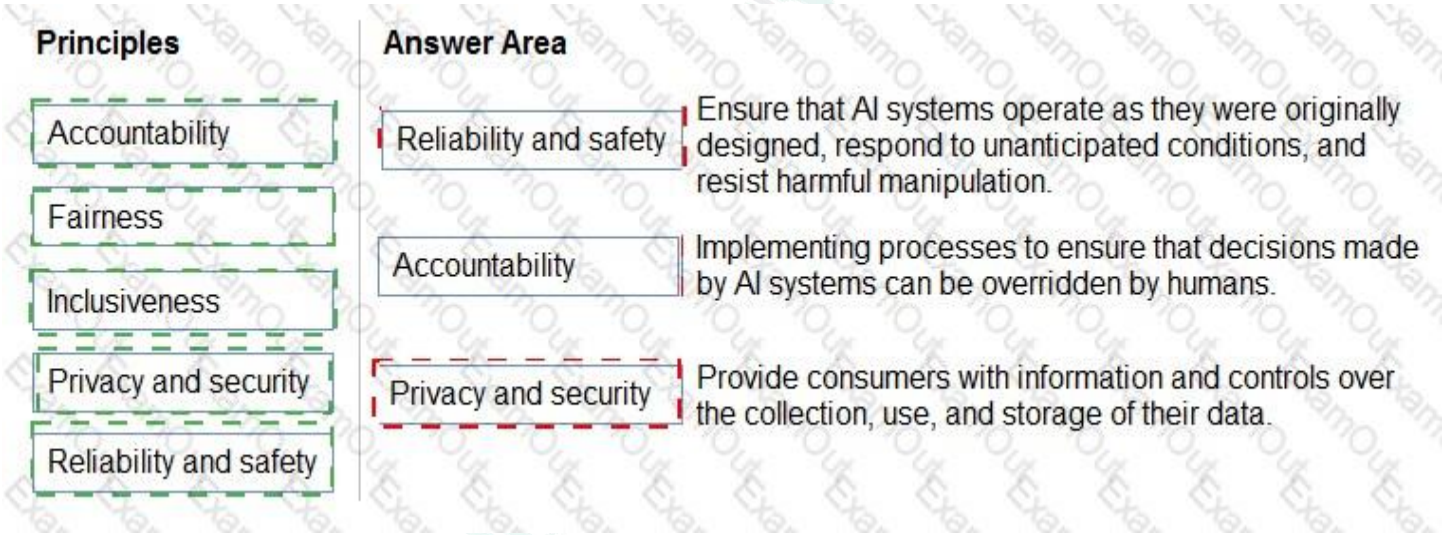
Match the Microsoft guiding principles for responsible AI to the appropriate descriptions.

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.



Answer:



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

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

https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

Question #:7 - (Exam Topic 1)

You are designing an AI system that empowers everyone, including people who have hearing, visual, and other impairments.

This is an example of which Microsoft guiding principle for responsible AI?

A. fairness

B. inclusiveness

C. reliability and safety

D. accountability

Answer: B

Explanation

Inclusiveness: At Microsoft, we firmly believe everyone should benefit from intelligent technology, meaning it must incorporate and address a broad range of human needs and experiences. For the 1 billion people with disabilities around the world, AI technologies can be a game-changer.

Reference:

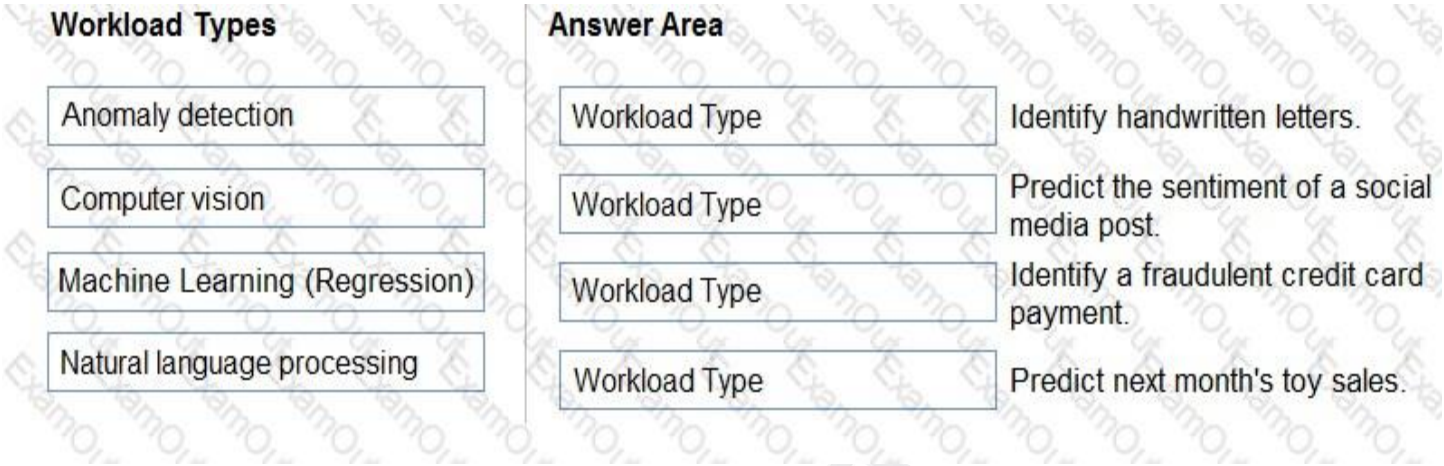
https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

Question #:8 - (Exam Topic 1)

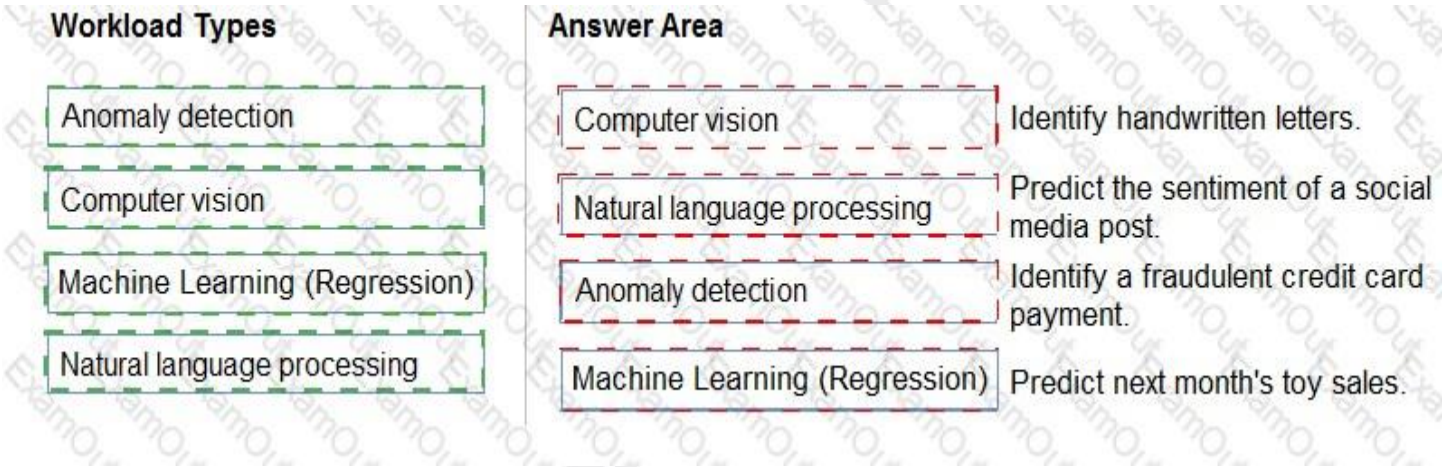
Match the types of AI workloads to the appropriate scenarios.

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.

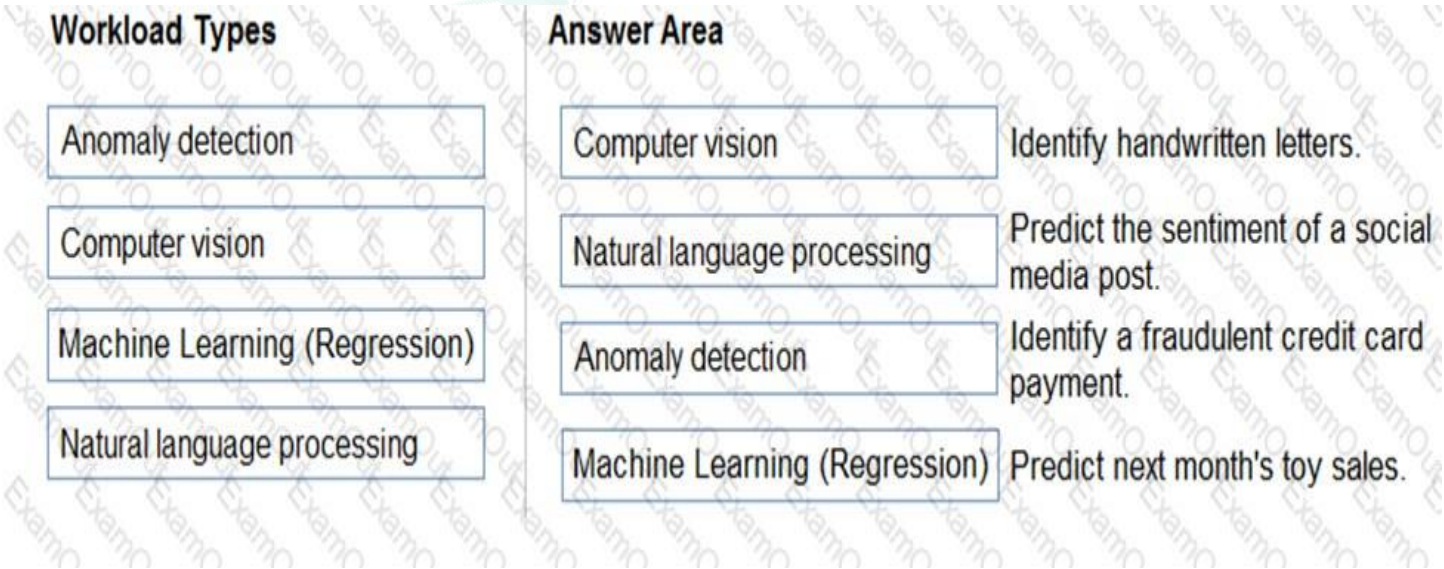
NOTE: Each correct selection is worth one point.



Answer:



Explanation



Reference:

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

Question #:9 - (Exam Topic 1)

For a machine learning progress, how should you split data for training and evaluation?

A. Use features for training and labels for evaluation.

B. Randomly split the data into rows for training and rows for evaluation.

C. Use labels for training and features for evaluation.

D. Randomly split the data into columns for training and columns for evaluation.

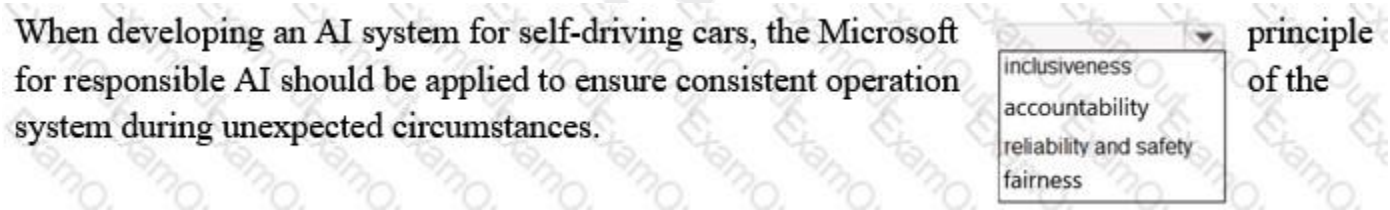
Answer: B

Explanation

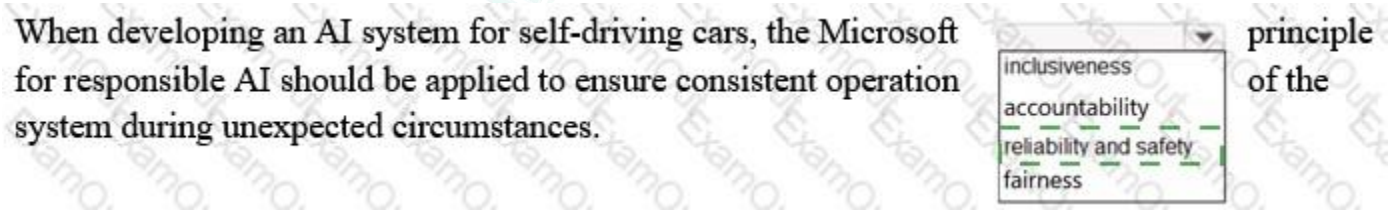
https://docs.microsoft.com/en-us/azure/machine-learning/algorithm-module-reference/split-data

Question #:10 - (Exam Topic 1)

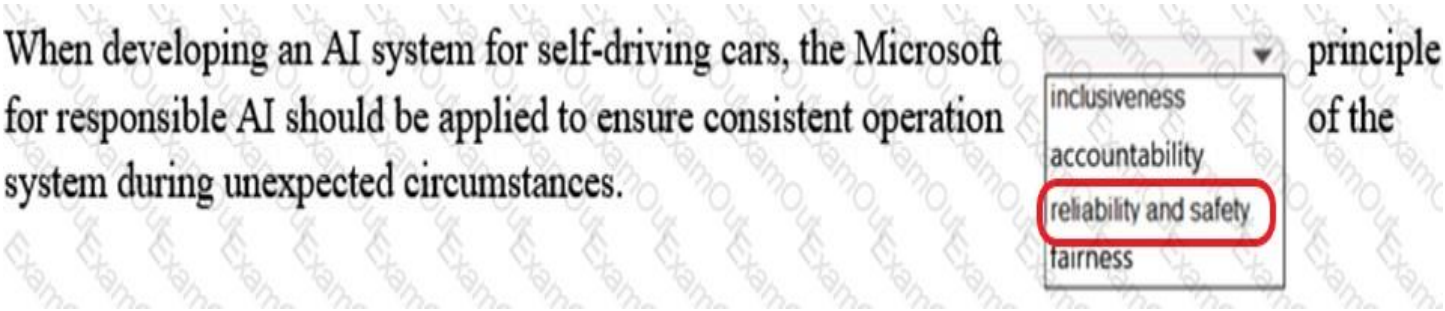
To complete the sentence, select the appropriate option in the answer area.



Answer:



Explanation



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.

Reference:

https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

AI systems should perform **reliably and safely**. For example, consider an AI-based software system for an autonomous vehicle; or a machine learning model that diagnoses patient symptoms and recommends prescriptions. Unreliability in these kinds of system can result in substantial risk to human life.

https://docs.microsoft.com/en-us/learn/modules/get-started-ai-fundamentals/7-understand-responsible-ai

Question #:11 - (Exam Topic 1)

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

Answer: C D F

Reference:

https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

Question #:12 - (Exam Topic 1)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

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.	○	○

Box 1: No

Box 2: Yes

Box 3: Yes

Anomaly detection encompasses many important tasks in machine learning:

Identifying transactions that are potentially fraudulent.

Learning patterns that indicate that a network intrusion has occurred.

Finding abnormal clusters of patients.

Checking values entered into a system.

Reference:

https://docs.microsoft.com/en-us/azure/machine-learning/studio-module-reference/anomaly-detection

Question #:13 - (Exam Topic 1)

You build a machine learning model by using the automated machine learning user interface (UI).

You need to ensure that the model meets the Microsoft transparency principle for responsible AI.

What should you do?

A. Set Validation type to Auto.

B. Enable Explain best model.

C. Set Primary metric to accuracy.

D. Set Max concurrent iterations to 0.

Answer: B

Explanation

Model Explain Ability.

Most businesses run on trust and being able to open the ML “black box” helps build transparency and trust. In heavily regulated industries like healthcare and banking, it is critical to comply with regulations and best practices. One key aspect of this is understanding the relationship between input variables (features) and model output. Knowing both the magnitude and direction of the impact each feature (feature importance) has on the predicted value helps better understand and explain the model. With model explain ability, we enable you to understand feature importance as part of automated ML runs.

Reference:

https://azure.microsoft.com/en-us/blog/new-automated-machine-learning-capabilities-in-azure-machine-learning

Question #:14 - (Exam Topic 1)

Your company is exploring the use of voice recognition technologies in its smart home devices. The company wants to identify any barriers that might unintentionally leave out specific user groups.

This an example of which Microsoft guiding principle for responsible AI?

A. accountability

B. fairness

C. inclusiveness

D. privacy and security

Answer: C

Reference:

https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

AI systems should empower everyone and engage people. AI should bring benefits to all parts of society, regardless of **physical ability, gender,**

sexual orientation, ethnicity, or other factors.

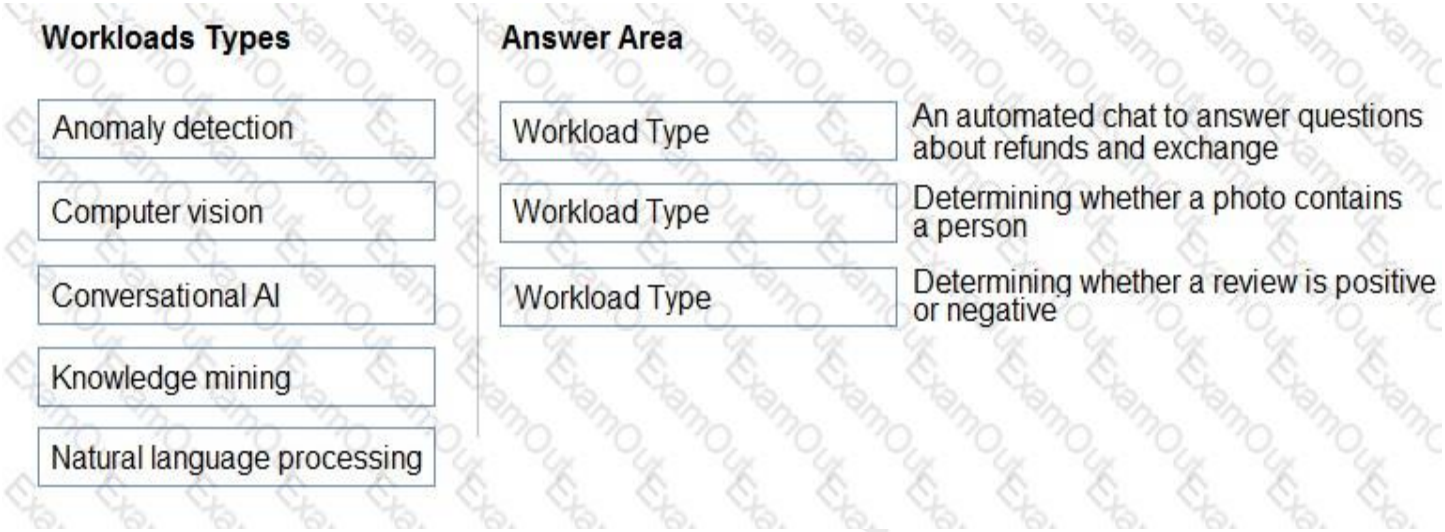
https://docs.microsoft.com/en-us/learn/modules/get-started-ai-fundamentals/7-understand-responsible-ai

Question #:15 - (Exam Topic 1)

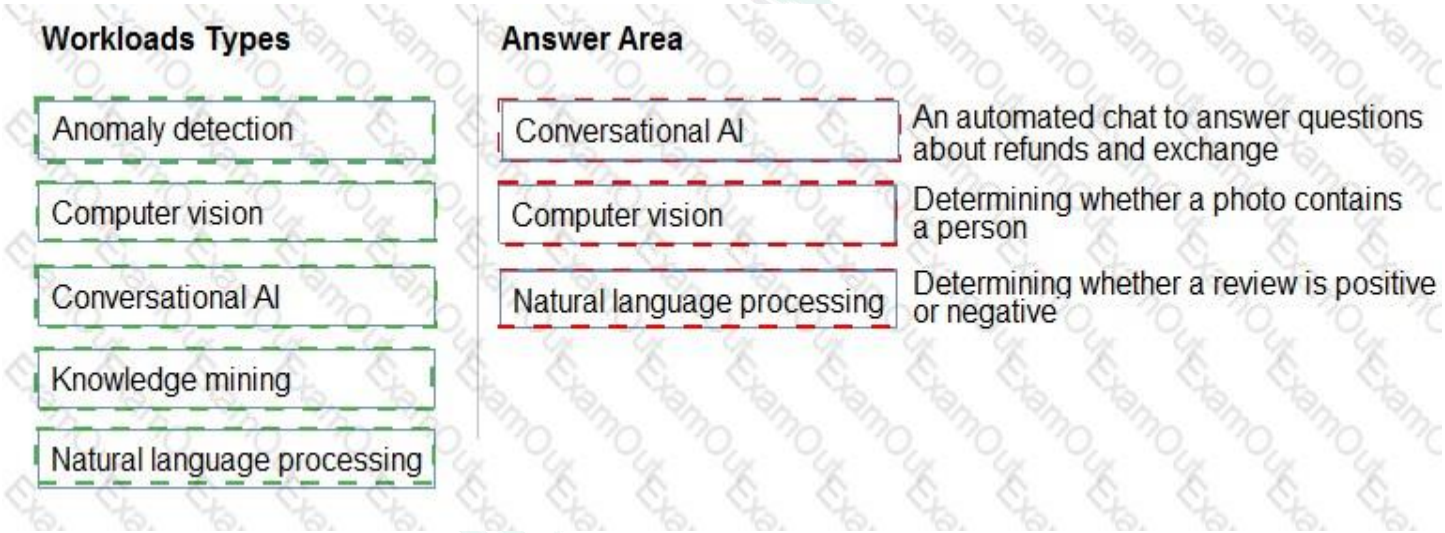
Match the types of AI workloads to the appropriate scenarios.

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.

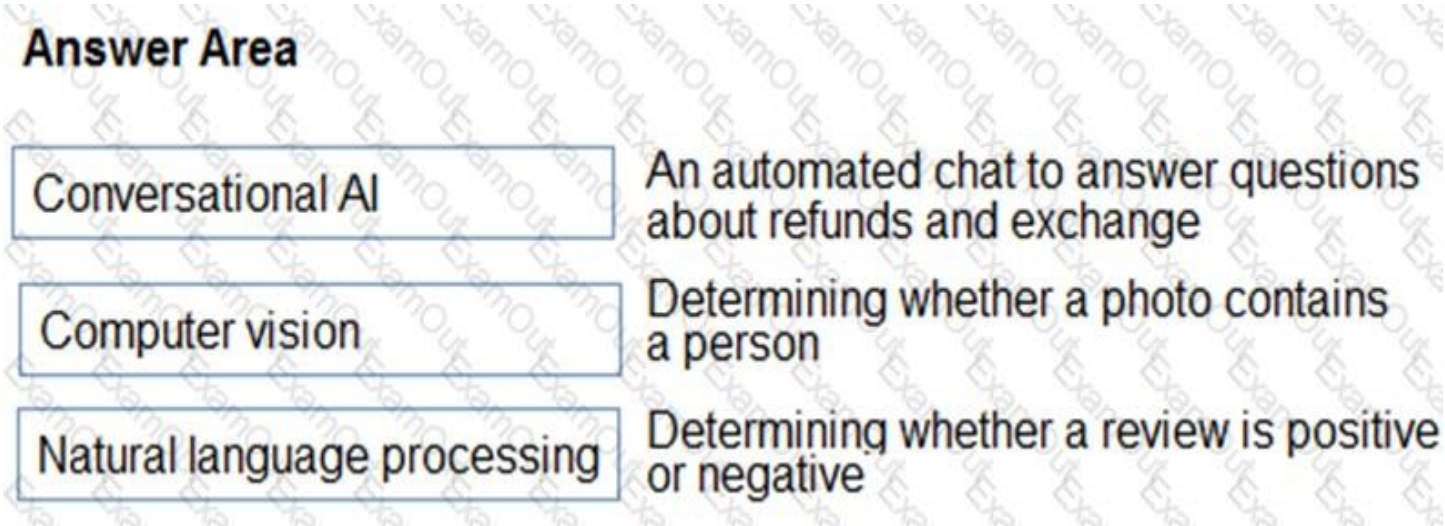
NOTE: Each correct selection is worth one point.



Answer:



Explanation



Box 3: Natural language processing

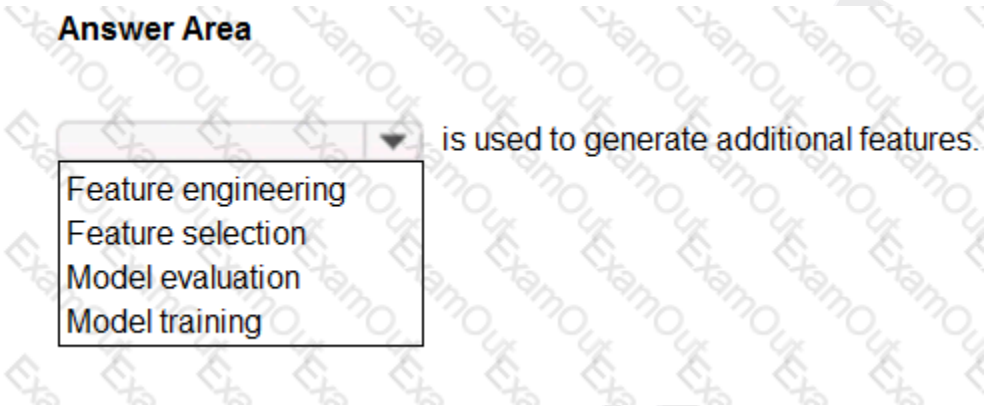
Natural language processing (NLP) is used for tasks such as sentiment analysis, topic detection, language detection, key phrase extraction, and document categorization.

Reference:

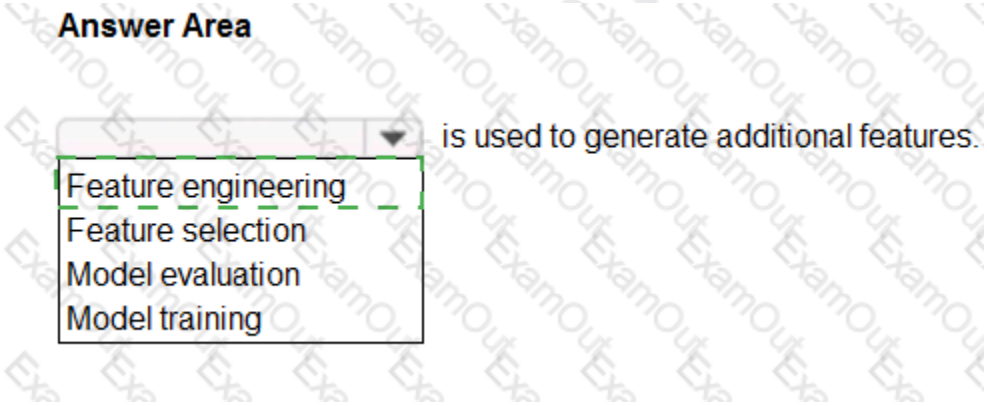
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

Question #:16 - (Exam Topic 1)

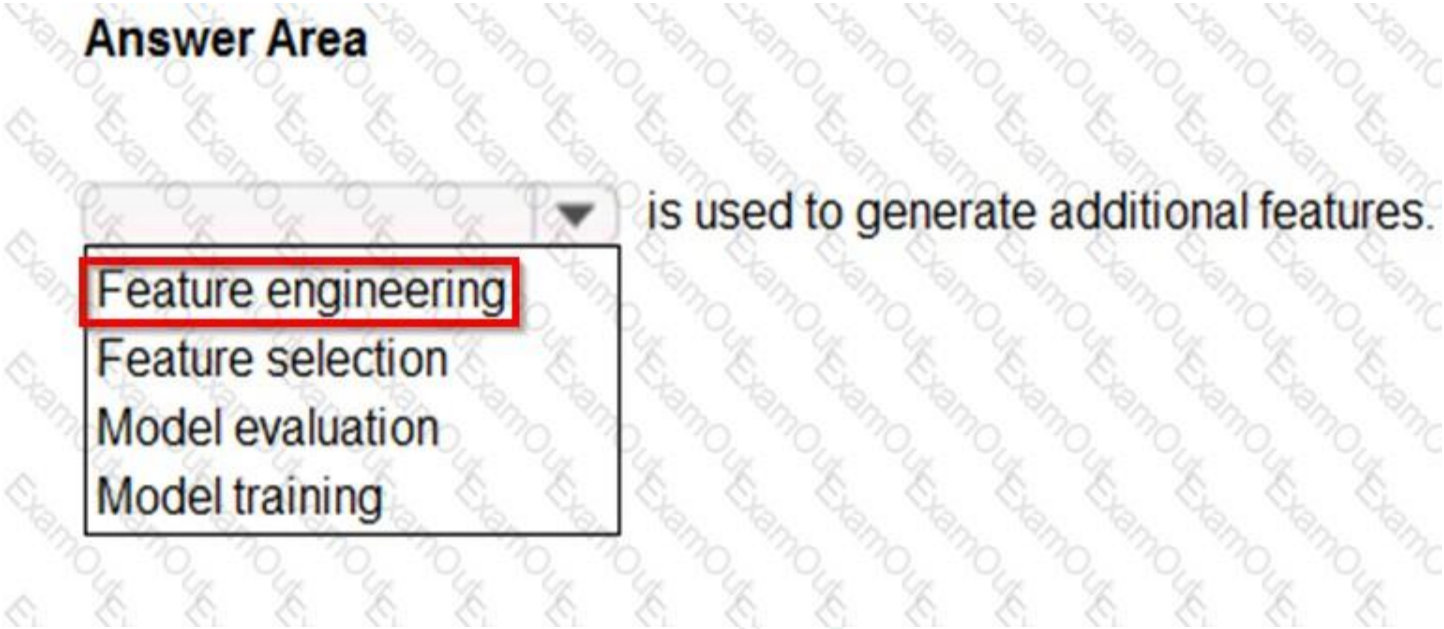
To complete the sentence, select the appropriate option in the answer area.



Answer:



Explanation



Reference:

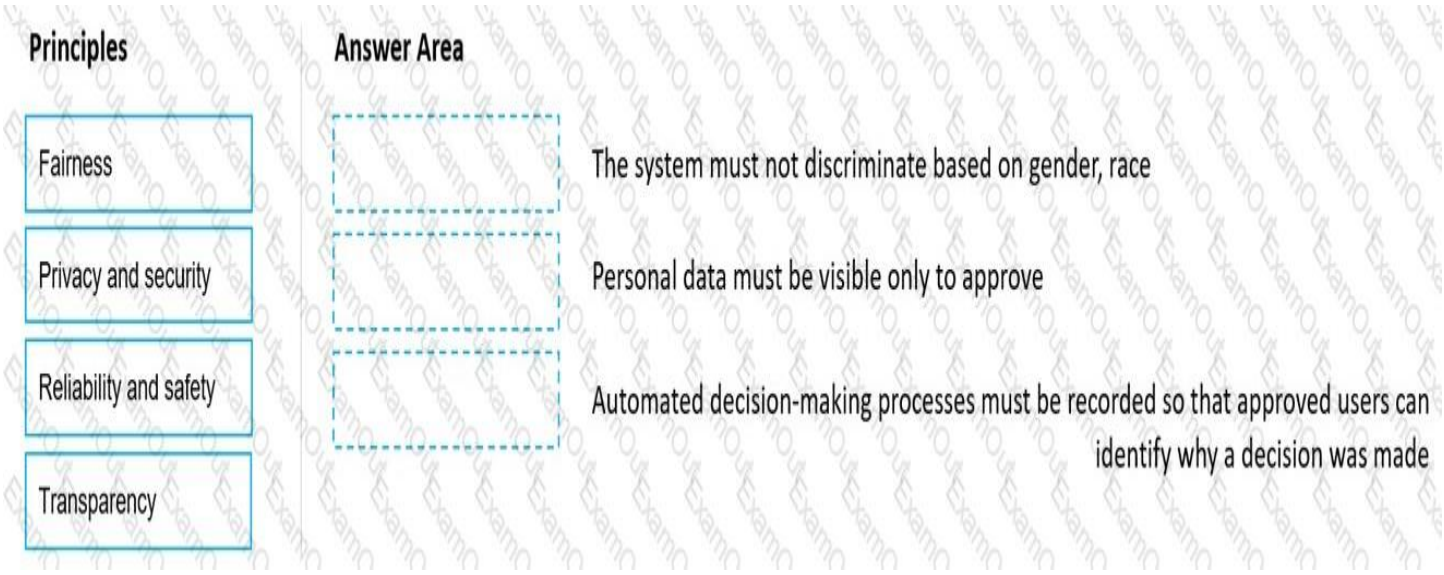
https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/create-features

Question #:17 - (Exam Topic 1)

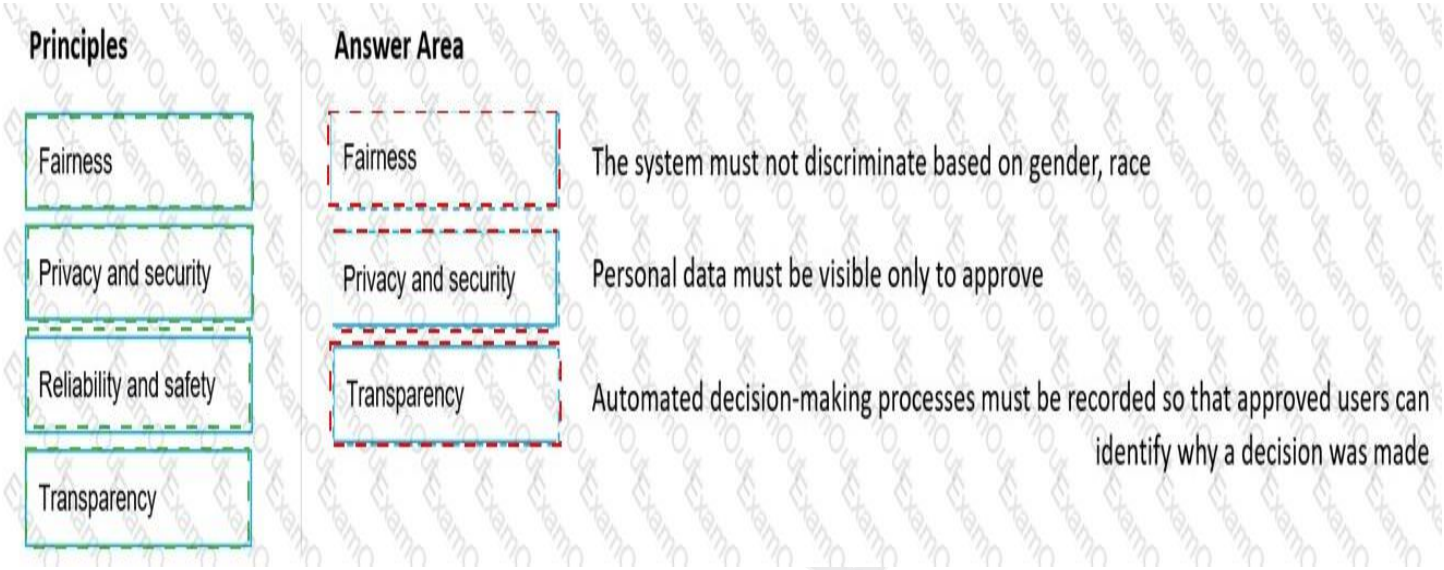
Match the principles of responsible AI to appropriate requirements.

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.

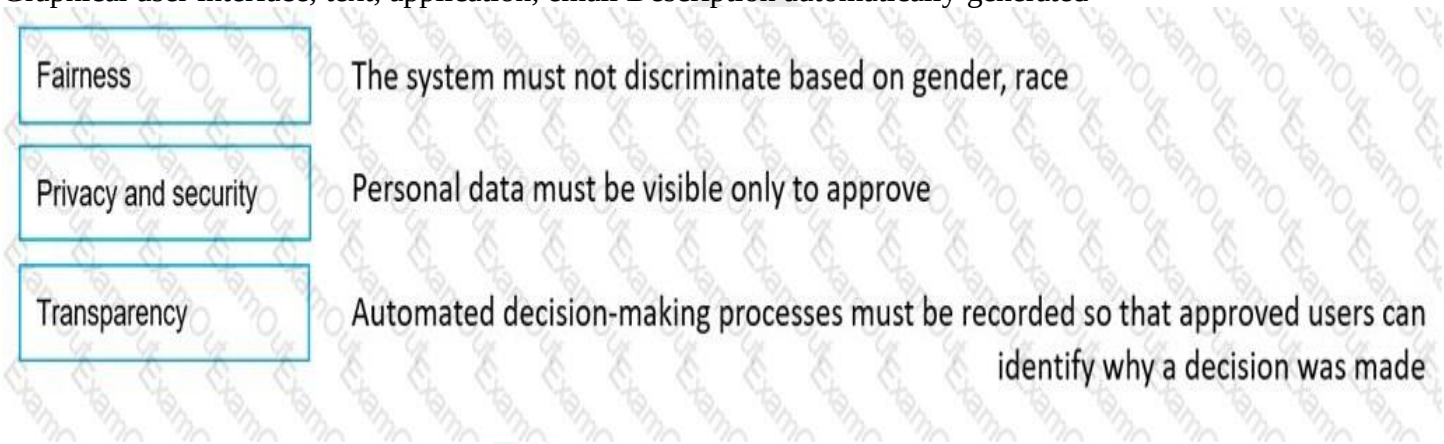


Answer:



Explanation

Graphical user interface, text, application, email Description automatically generated



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 #:18 - (Exam Topic 1)

A company employs a team of customer service agents to provide telephone and email support to customers.

The company develops a webchat bot to provide automated answers to common customer queries.

Which business benefit should the company expect as a result of creating the webchat bot solution?

A. increased sales

B. a reduced workload for the customer service agents

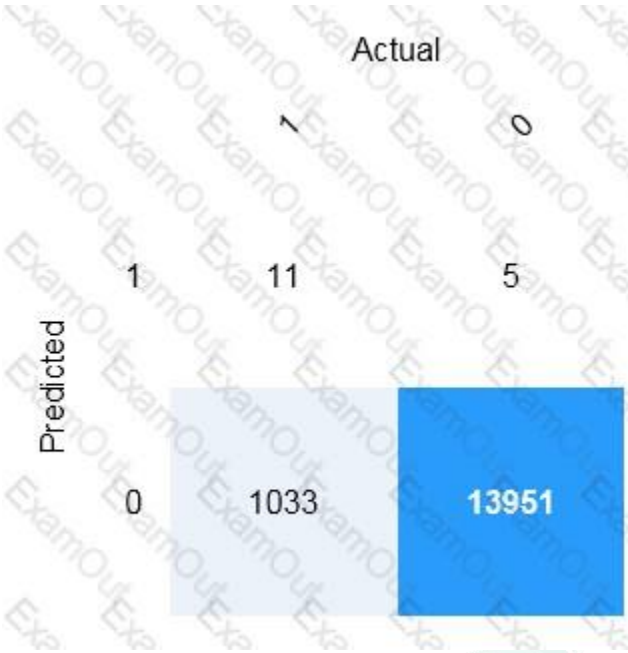
C. improved product reliability

Answer: B

Question #:19 - (Exam Topic 1)

You are developing a model to predict events by using classification.

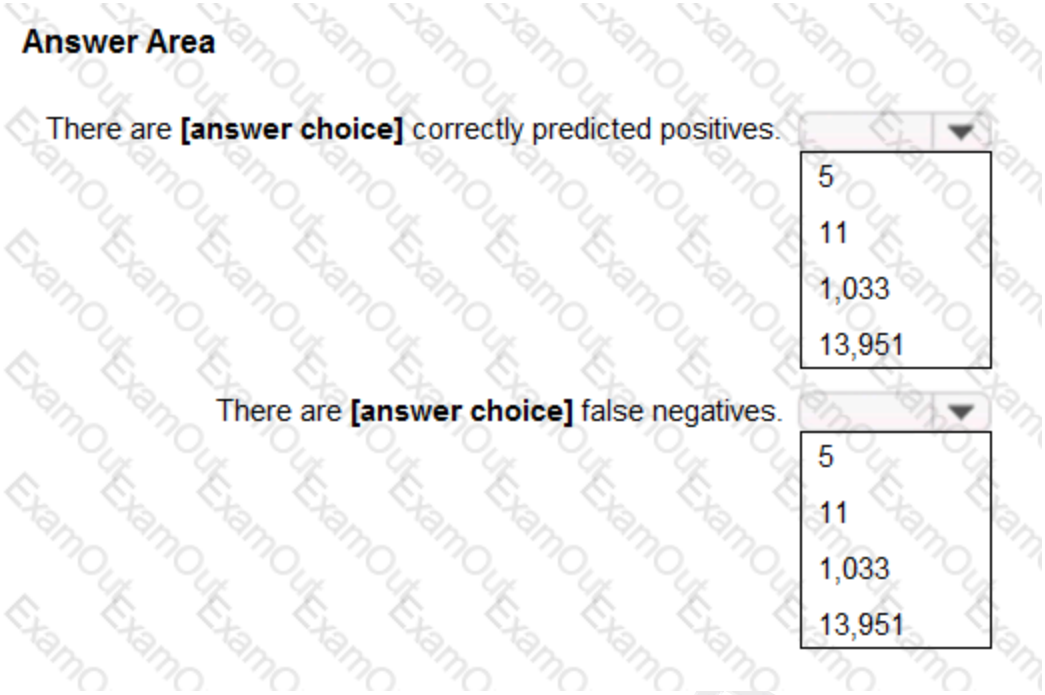
You have a confusion matrix for the model scored on test data as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

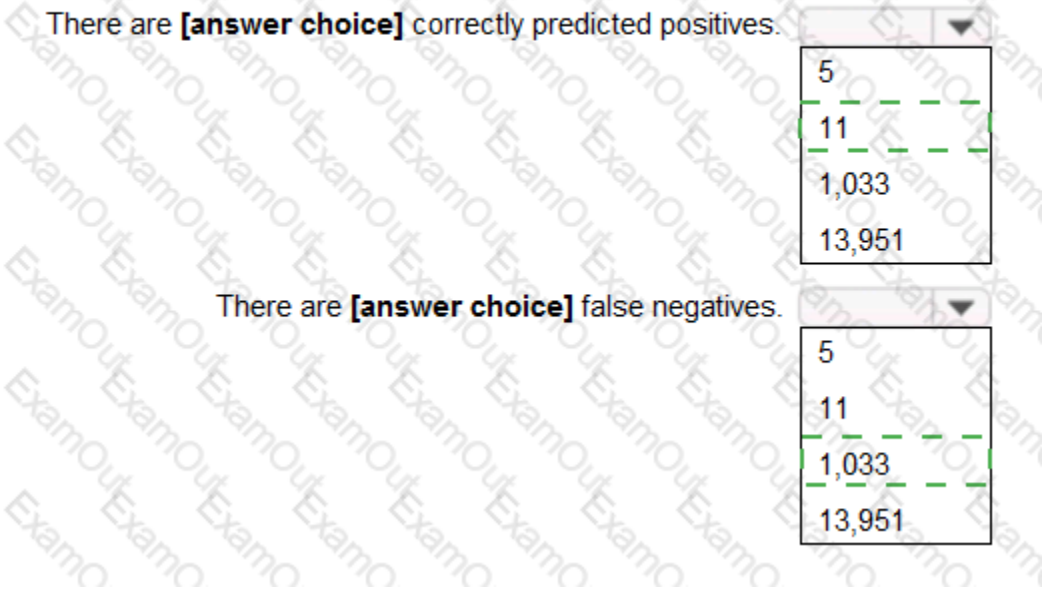
NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Answer Area



Explanation

Answer Area

There are **[answer choice]** correctly predicted positives.

- 5
- 11
- 1,033
- 13,951

There are **[answer choice]** false negatives.

- 5
- 11
- 1,033
- 13,951

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

Finding TP is easy. It basically means the value where Predicted and True value is 1 and that is 11 in this case.

False Negative means where true value was 1 but predicted value was 0 and that is 1033 in this case

The confusion matrix shows cases where both the predicted and actual values were 1 (known as *true positives*) at the top left, and cases where both the predicted and the actual values were 0 (*true negatives*) at the bottom right. The other cells show cases where the predicted and actual values differ (*false positives* and *false negatives*).

https://docs.microsoft.com/en-us/learn/modules/create-classification-model-azure-machine-learning-designer/ev

Question #:20 - (Exam Topic 1)

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

Answer Area

Returning a bounding box that indicates the location of a vehicle in an image is an example of [ ]

- image classification.
- object detection.
- optical character recognizer (OCR).
- semantic segmentation.

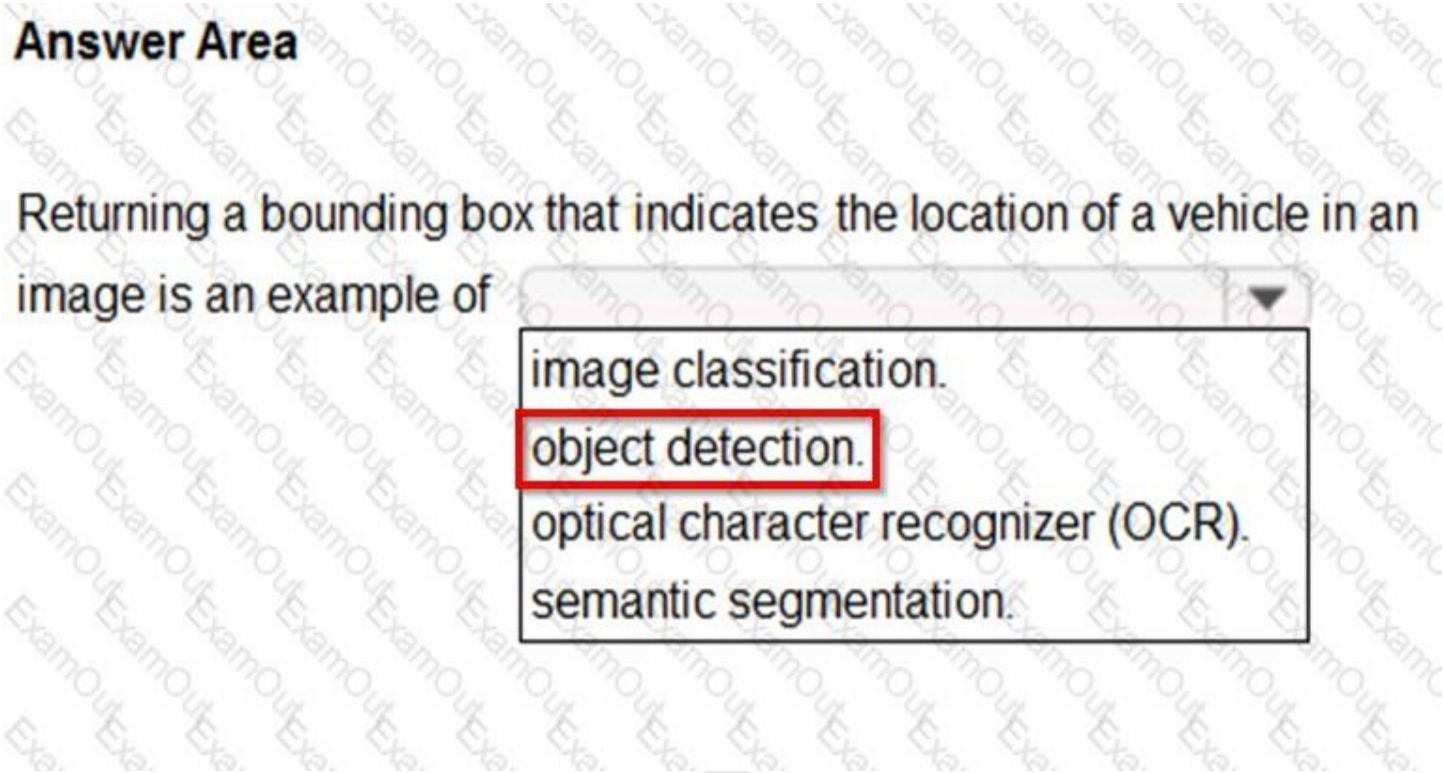
Answer:

Answer Area

Returning a bounding box that indicates the location of a vehicle in an image is an example of [object detection.]

- image classification.
- object detection.
- optical character recognizer (OCR).
- semantic segmentation.

Explanation



Reference:

https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-object-detection

Question #:21 - (Exam Topic 1)

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

Answer: A

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.

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 #:22 - (Exam Topic 1)

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 Al 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 Al-based algorithms for automated decision making

Answer: B C

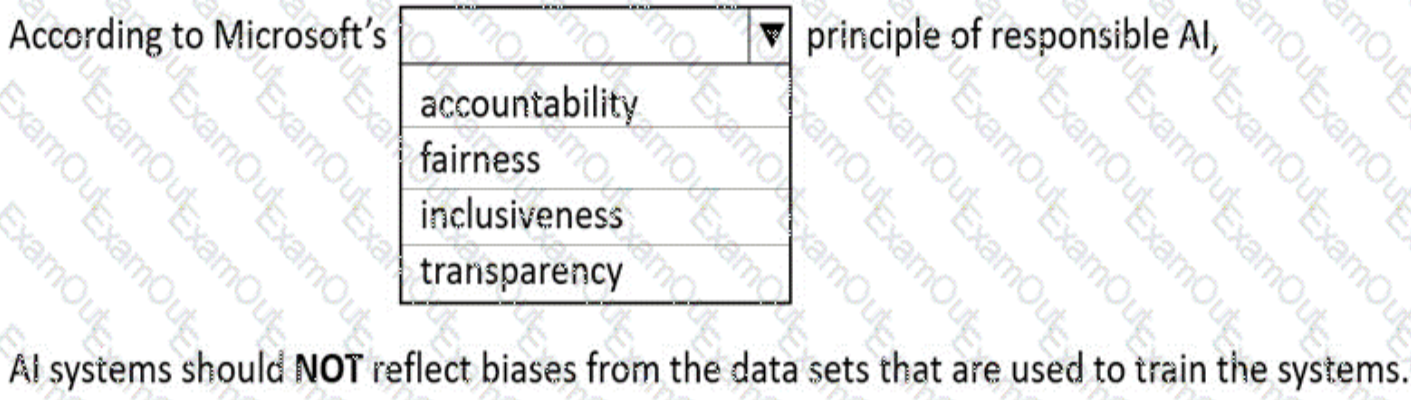
Reference:

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

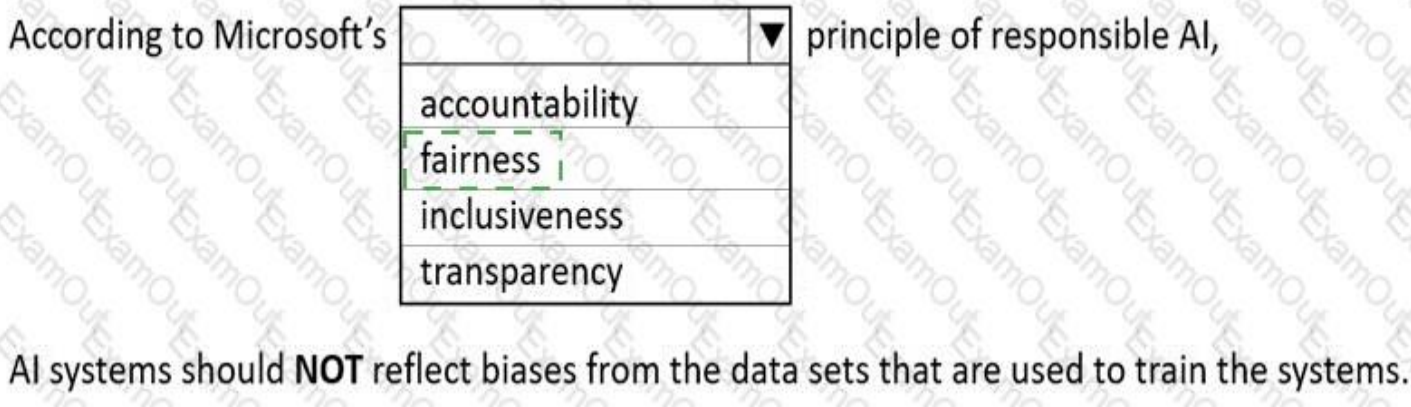
https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/3-implications-responsible-ai-practical

Question #:23 - (Exam Topic 1)

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

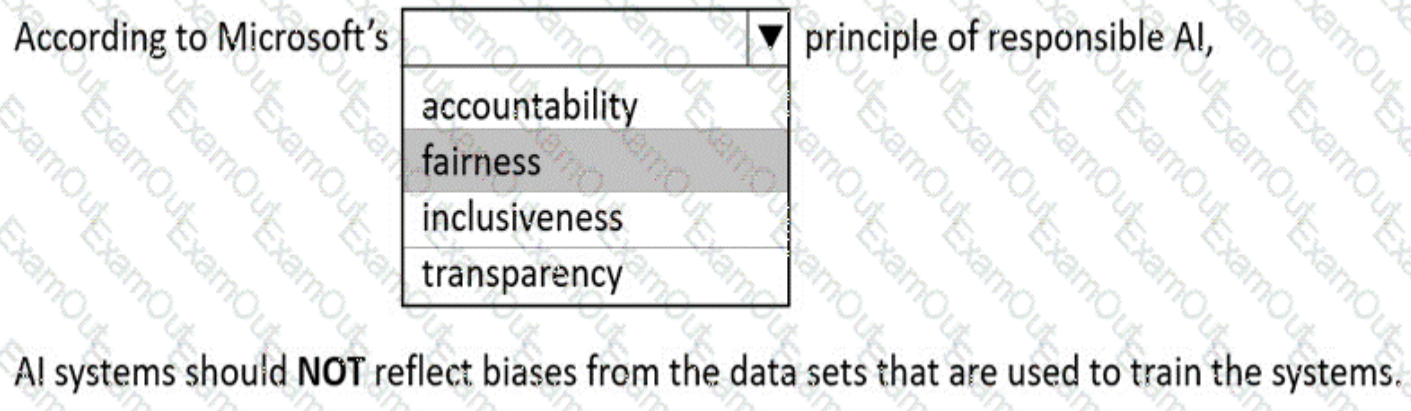


Answer:



Explanation

Diagram, table Description automatically generated



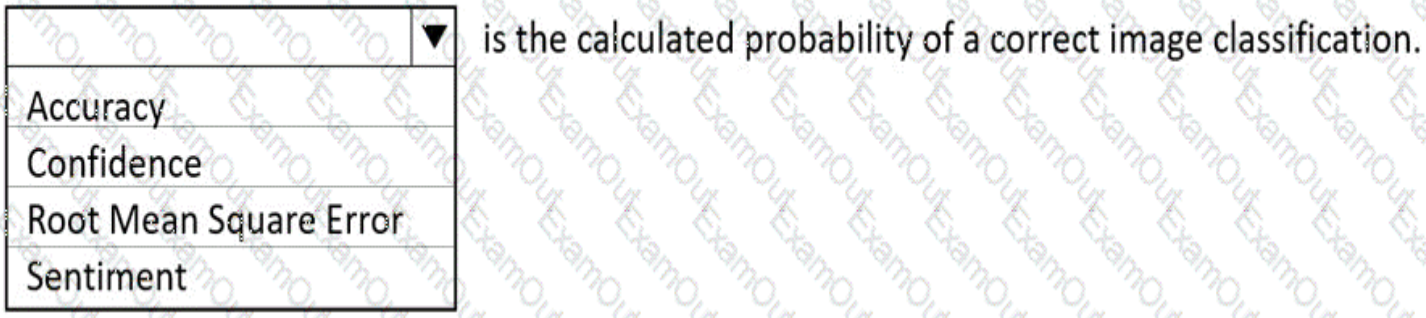
Reference:

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

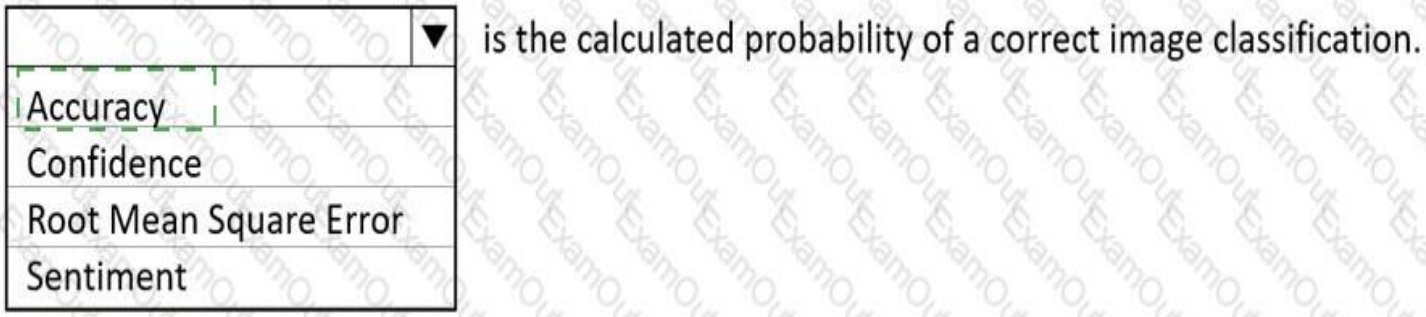
Topic 2, Describe fundamental principles of machine learning on Azure

Question #:1 - (Exam Topic 2)

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

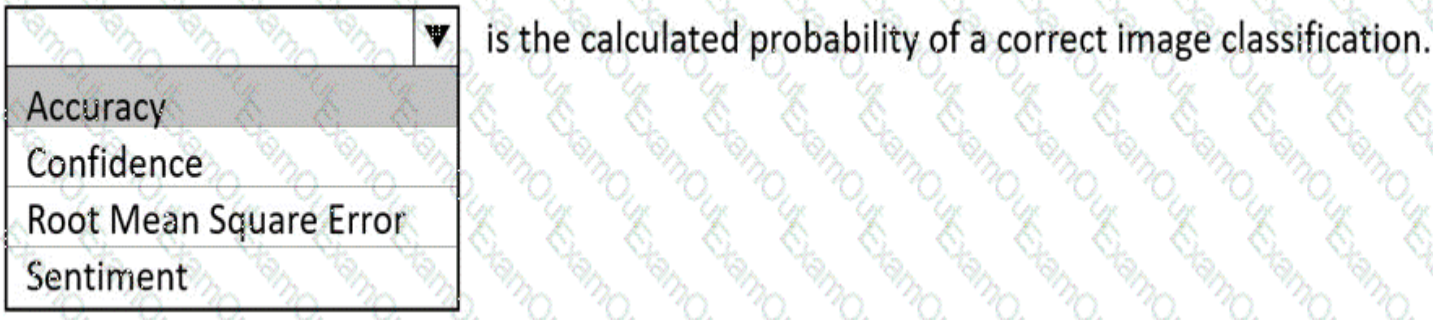


Answer:



Explanation

Text Description automatically generated

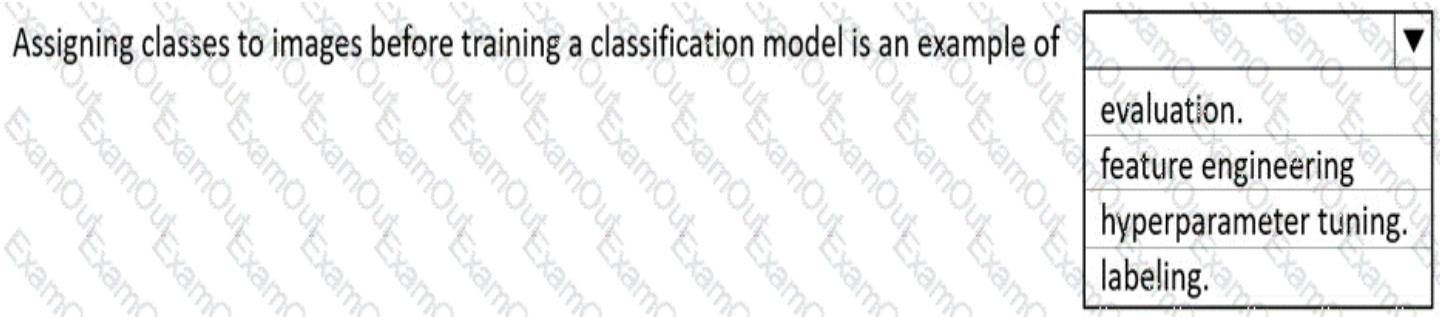


Reference:

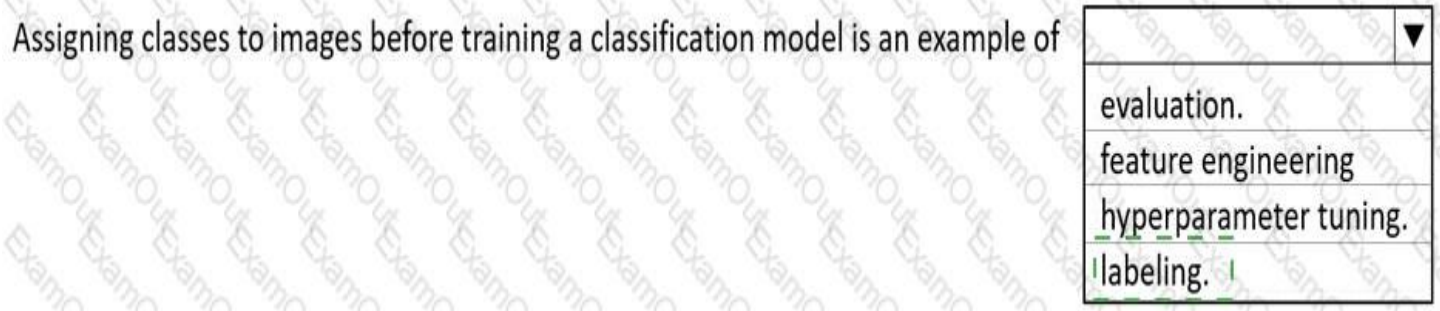
https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/getting-started-build-a-classifie

Question #:2 - (Exam Topic 2)

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

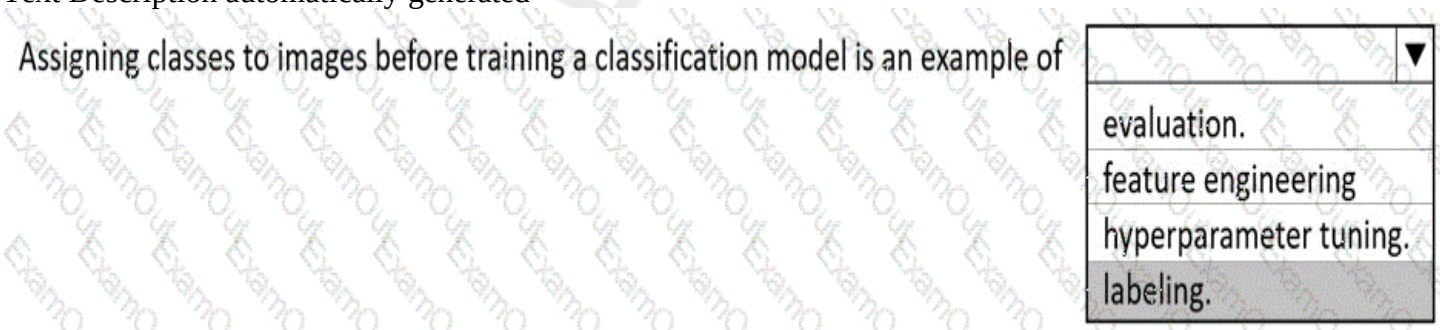


Answer:



Explanation

Text Description automatically generated

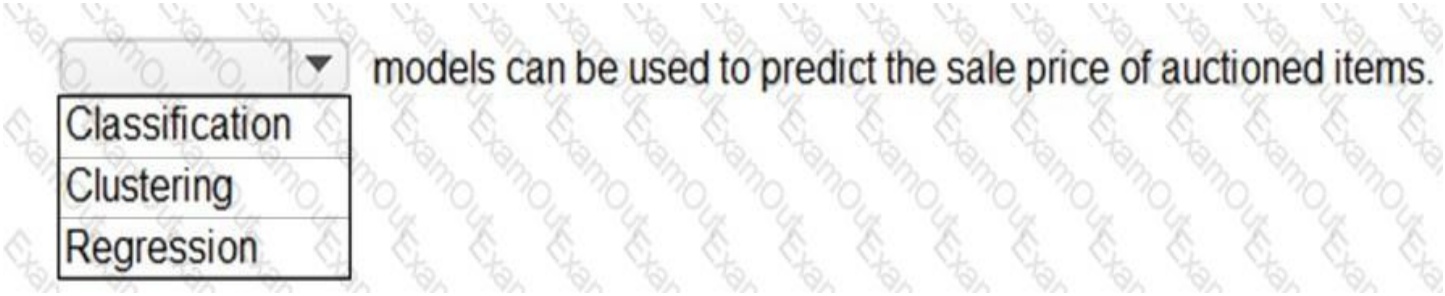


Reference:

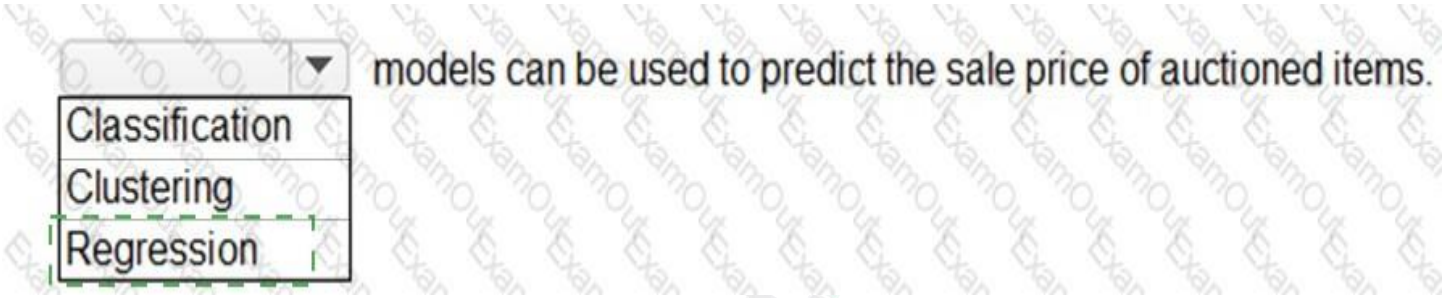
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-label-data

Question #:3 - (Exam Topic 2)

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

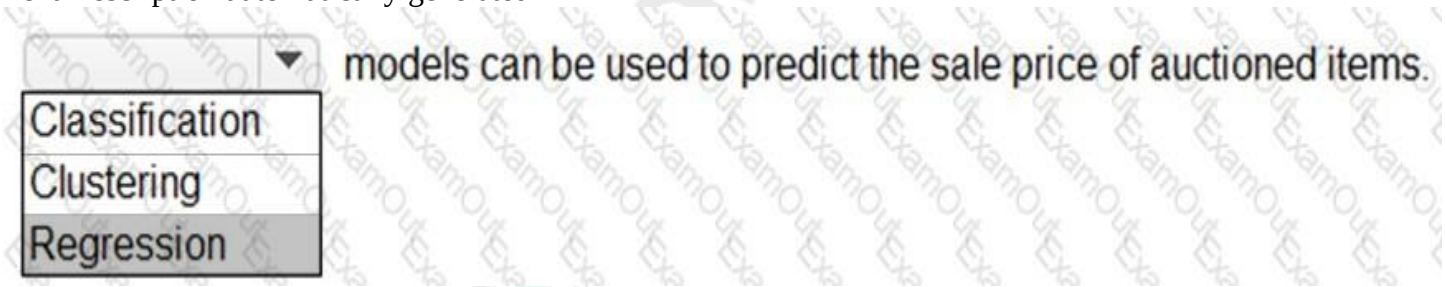


Answer:



Explanation

Text Description automatically generated



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 #:4 - (Exam Topic 2)

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

Answer: C

Explanation

The goal is to produce a trained (fitted) model that generalizes well to new, unknown **data**. The fitted model is evaluated using "new" examples from the held-out datasets (validation and **test** datasets) to estimate the model's accuracy in classifying new **data**.

https://en.wikipedia.org/wiki/Training,_validation,_and_test_sets#:~:text=Training%20dataset,-A%20training%20dataset&text=The%20goal%20is%20to%20produce,accuracy%20in%20classifying%20new%

Question #:5 - (Exam Topic 2)

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
Labelling is the process of tagging training data with known values.	○	○
You should evaluate a model by using the same data used to train the model.	○	○
Accuracy is always the primary metric used to measure a model's performance.	○	○

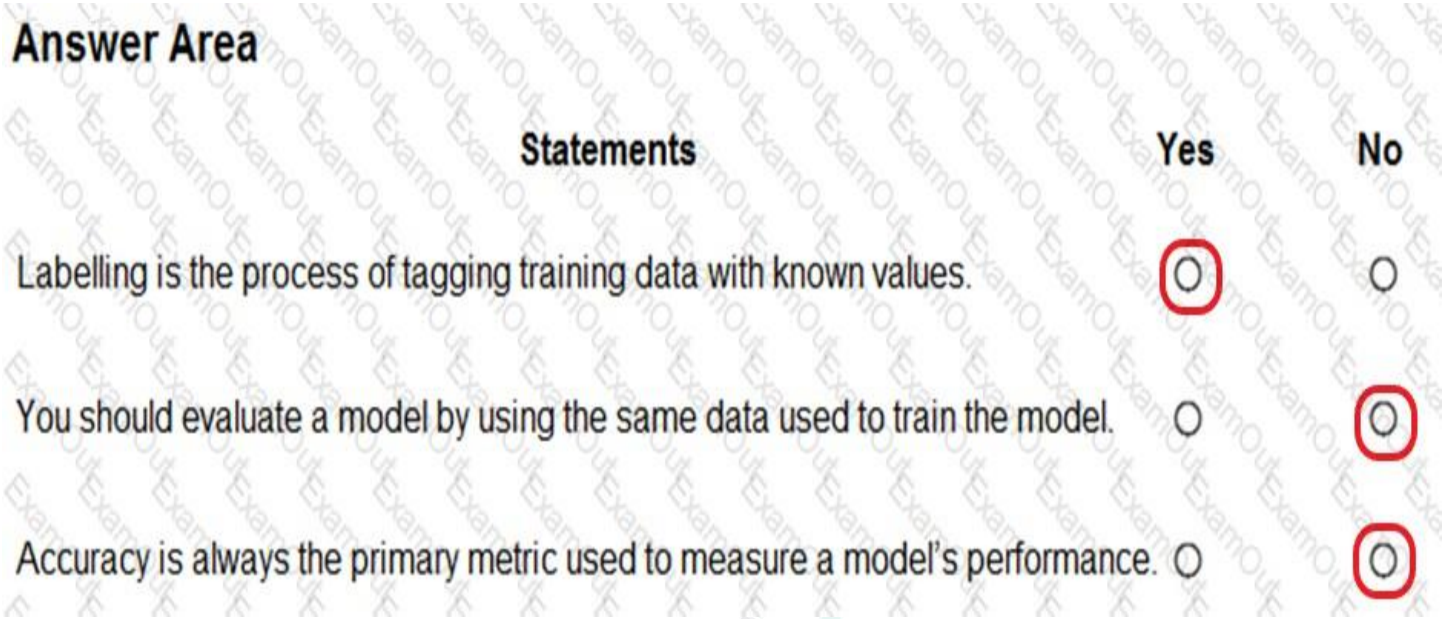
Answer:

Answer Area

Statements	Yes	No
Labelling is the process of tagging training data with known values.	○	○
You should evaluate a model by using the same data used to train the model.	○	○
Accuracy is always the primary metric used to measure a model's performance.	○	○

Explanation

Answer Area



Box 1: Yes

In machine learning, if you have labeled data, that means your data is marked up, or annotated, to show the target, which is the answer you want your machine learning model to predict.

In general, data labeling can refer to tasks that include data tagging, annotation, classification, moderation, transcription, or processing.

Box 2: No

Box 3: No

Accuracy is simply the proportion of correctly classified instances. It is usually the first metric you look at when evaluating a classifier. However, when the test data is unbalanced (where most of the instances belong to one of the classes), or you are more interested in the performance on either one of the classes, accuracy doesn't really capture the effectiveness of a classifier.

Reference:

https://www.cloudfactory.com/data-labeling-guide

https://docs.microsoft.com/en-us/azure/machine-learning/studio/evaluate-model-performance

Question #:6 - (Exam Topic 2)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

Graphical user interface, text, application, email Description automatically generated

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.	○	○

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 #:7 - (Exam Topic 2)

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

Answer: A C

Explanation

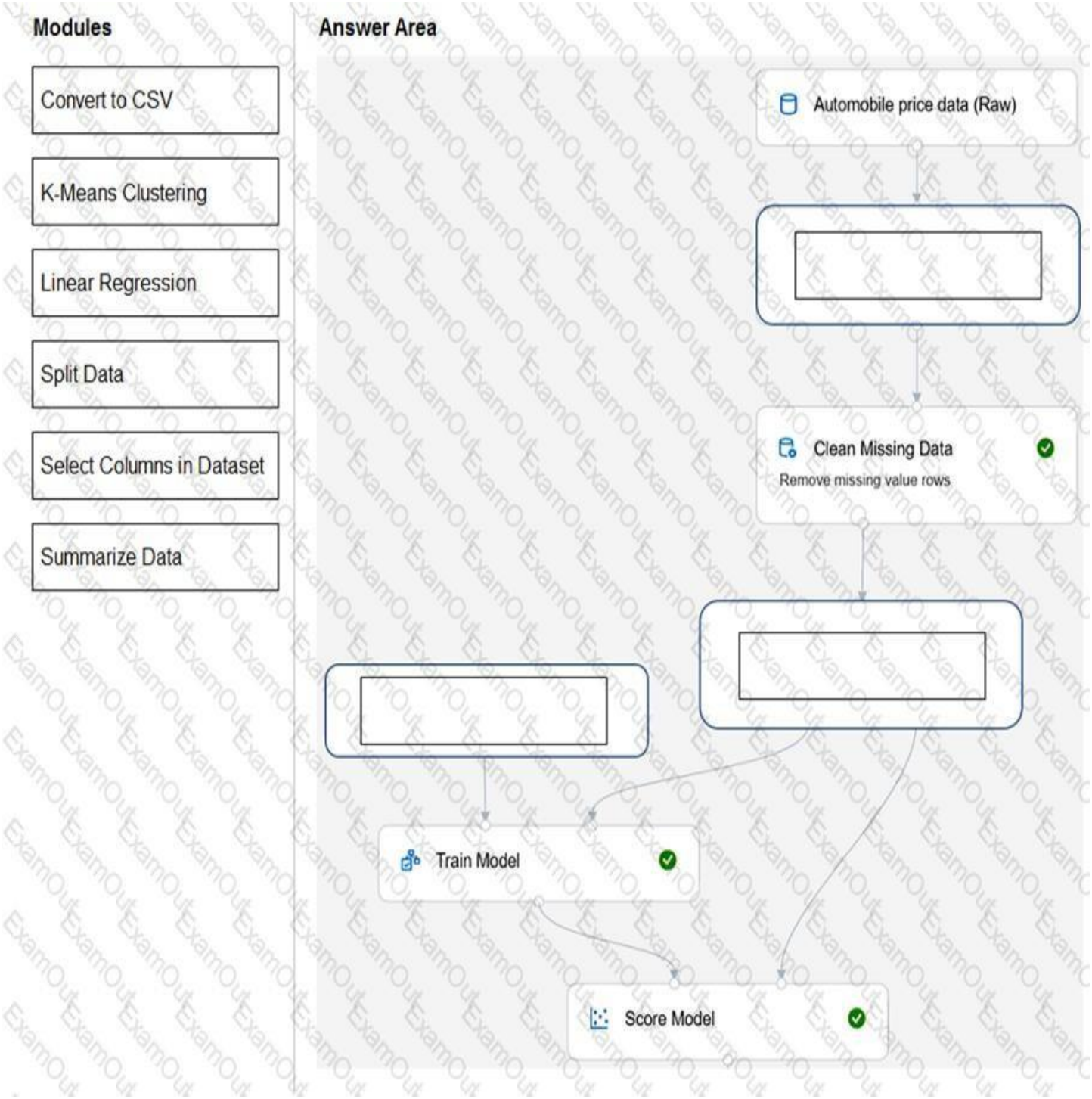
First Name, Last Name, Age and Education Level are features. Income range is a label (what you want to predict). First Name and Last Name are irrelevant in that they have no bearing on income. Age and Education level are the features you should use.

Question #:8 - (Exam Topic 2)

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.


Modules
Convert to CSV
K-Means Clustering
Linear Regression
Split Data
Select Columns in Dataset
Summarize Data
Answer Area
Automobile price data (Raw)
Clean Missing Data
Remove missing value rows
Train Model
Score Model

Answer:

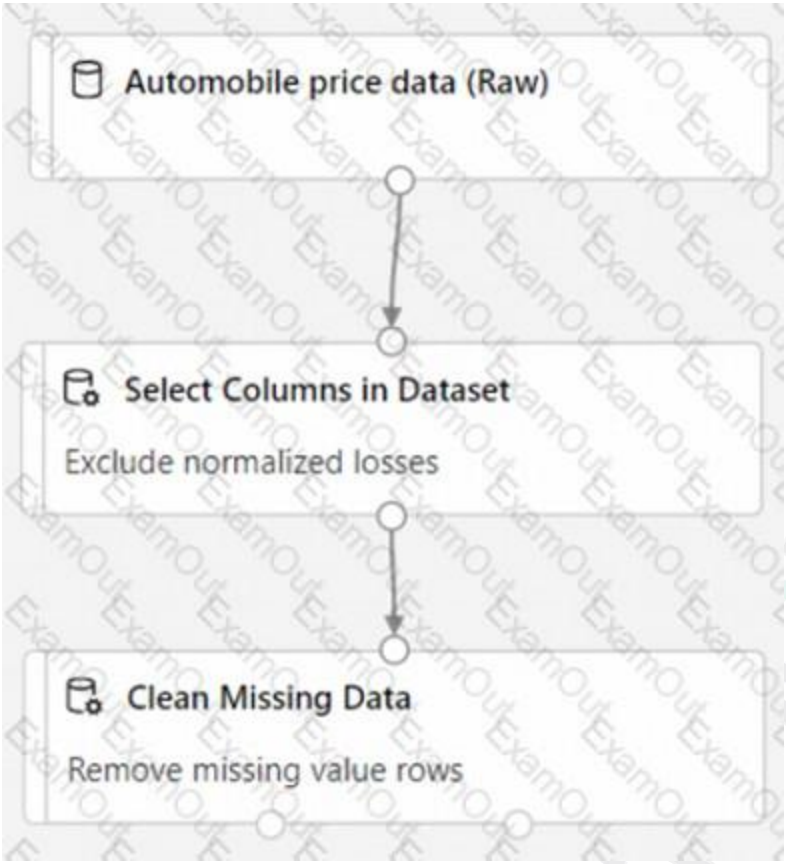
Explanation

Diagram Description automatically generated

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 #:9 - (Exam Topic 2)

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

Answer Area

From Azure Machine Learning designer, to deploy a real-time inference pipeline as a service for others to consume, you must deploy the model to

- a local web service.
- Azure Container Instances.
- Azure Kubernetes Service (AKS).
- Azure Machine Learning compute.

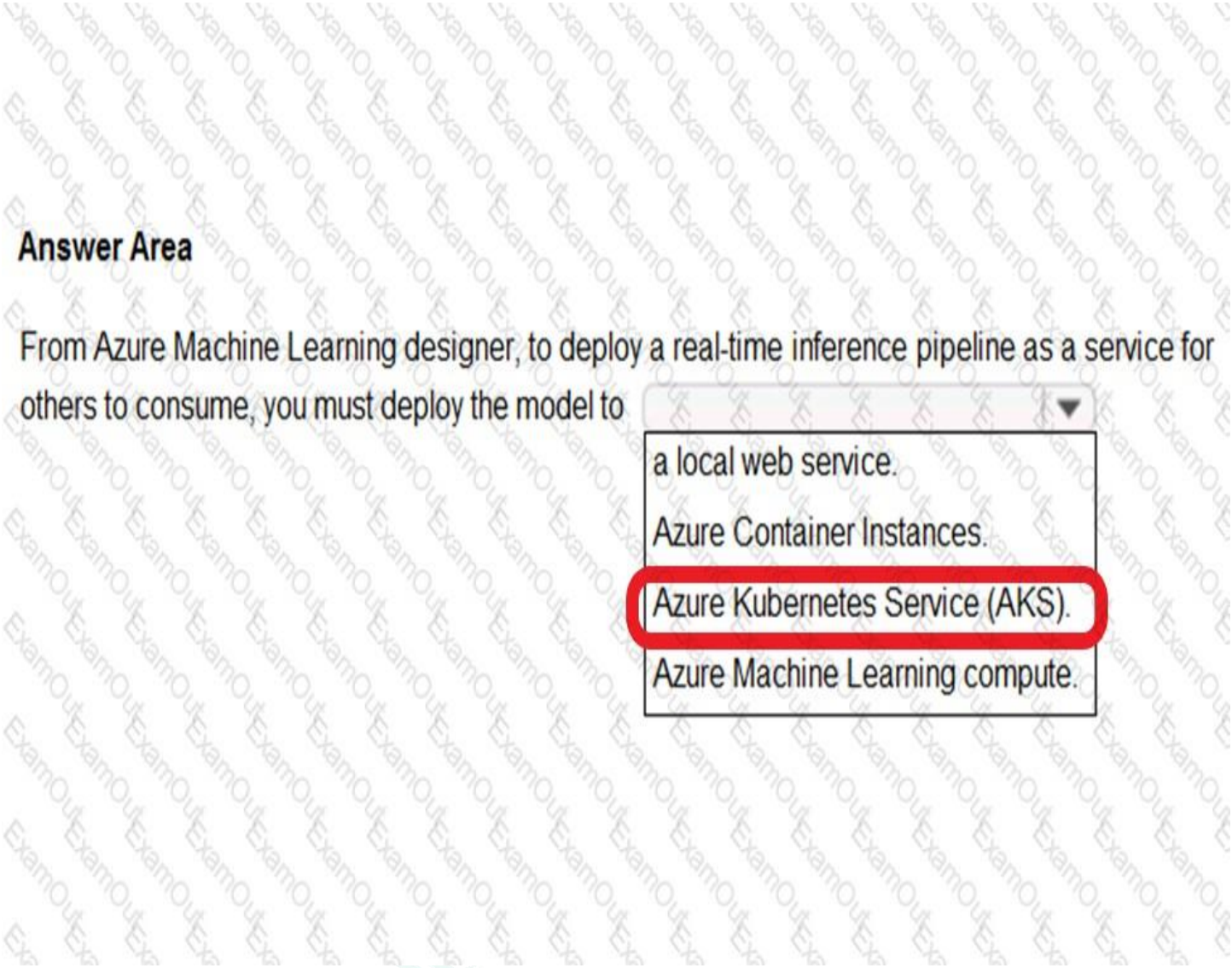
Answer:

Answer Area

From Azure Machine Learning designer, to deploy a real-time inference pipeline as a service for others to consume, you must deploy the model to

- a local web service.
- Azure Container Instances.
- Azure Kubernetes Service (AKS).
- Azure Machine Learning compute.

Explanation



To perform real-time inferencing, you must deploy a pipeline as a real-time endpoint.

Real-time endpoints must be deployed to an Azure Kubernetes Service cluster.

Reference:

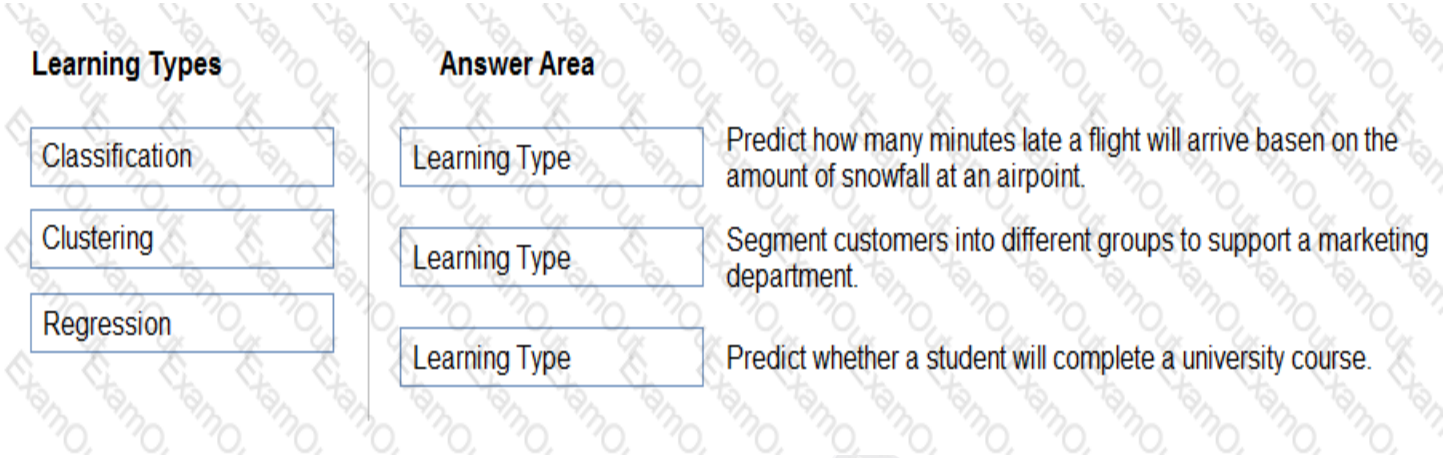
https://docs.microsoft.com/en-us/azure/machine-learning/concept-designer#deploy

Question #:10 - (Exam Topic 2)

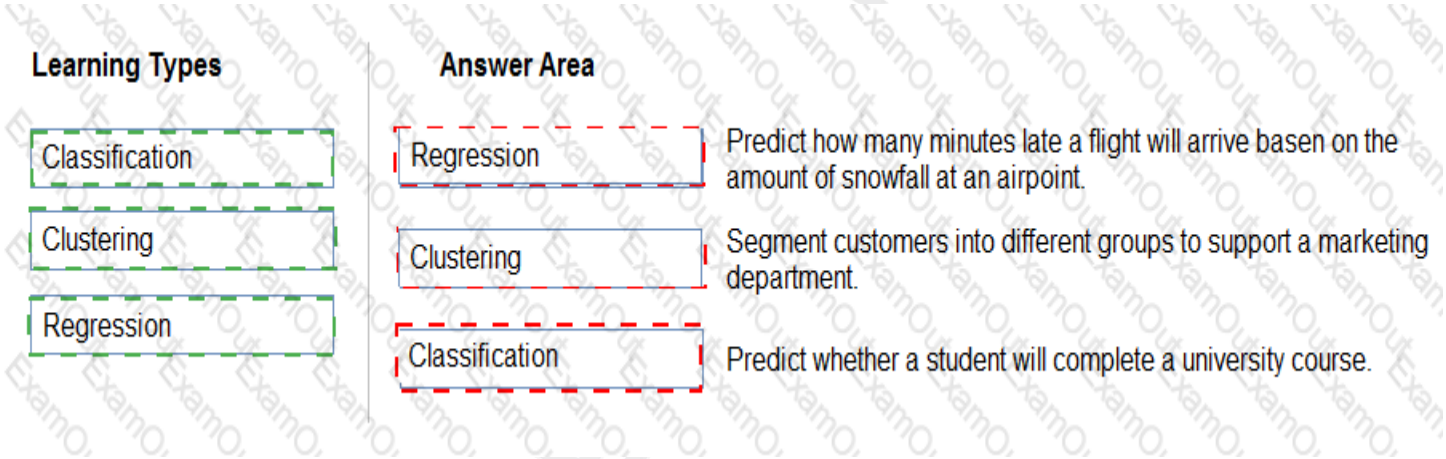
Match the types of machine learning to the appropriate scenarios.

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.



Answer:



Explanation

1- Regression

2- Clustering

3- Classification

Question #:11 - (Exam Topic 2)

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. co mpute

C. pipeline

D. module

Answer: A D

Explanation

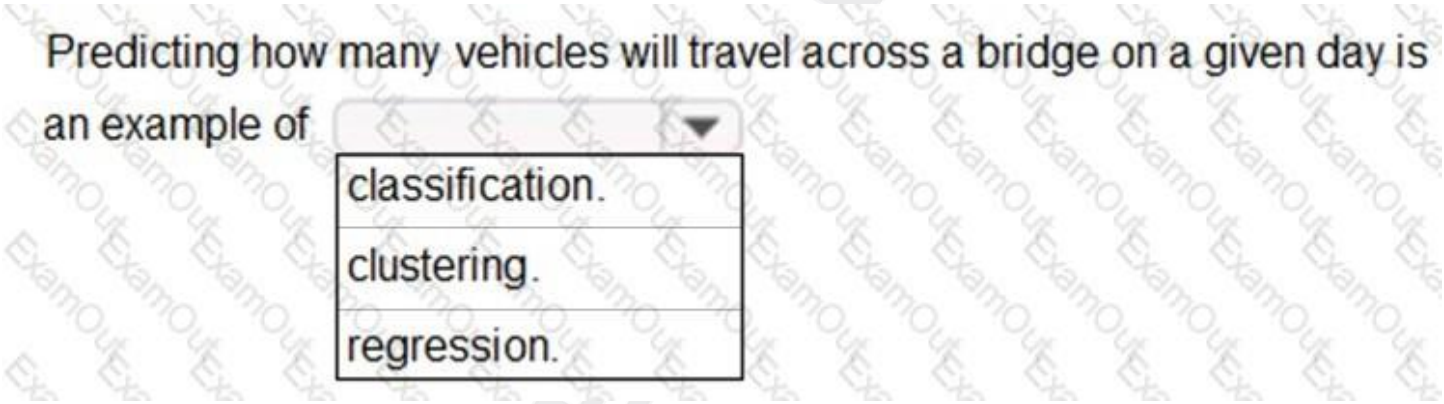
You can drag-and-drop datasets and modules onto the canvas.

Reference:

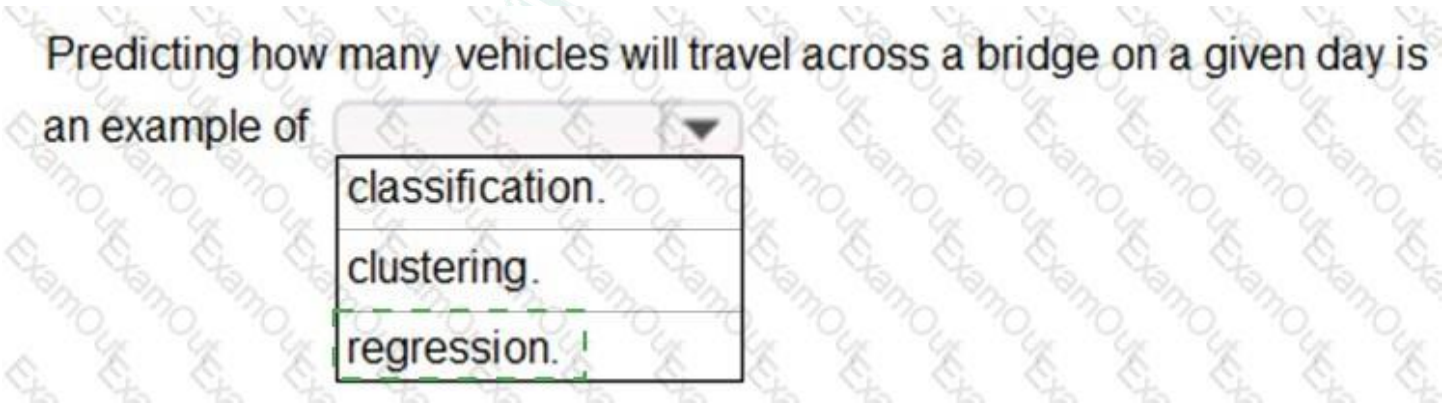
https://docs.microsoft.com/en-us/azure/machine-learning/concept-designer

Question #:12 - (Exam Topic 2)

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

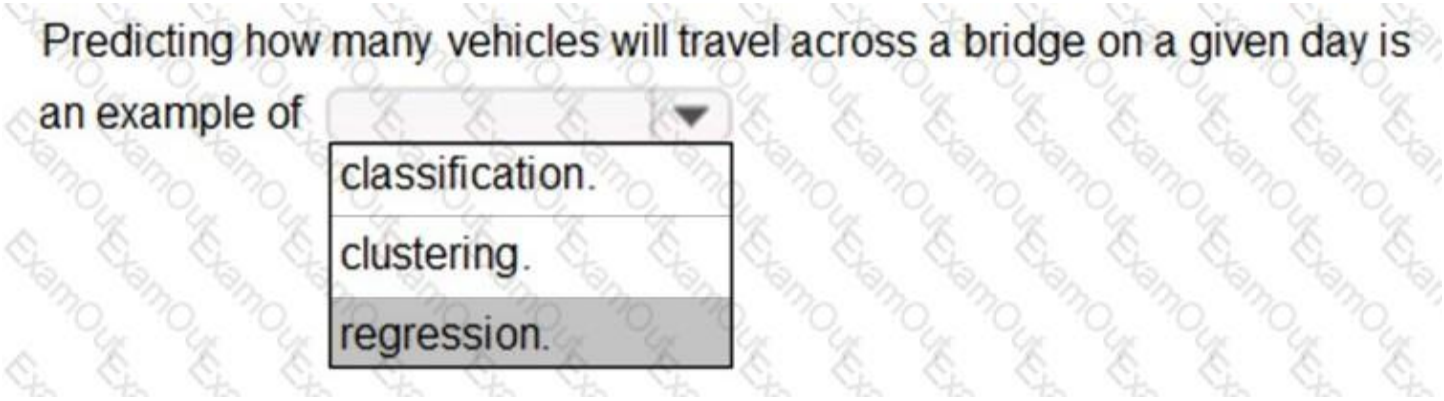


Answer:



Explanation

Table Description automatically generated with medium confidence



Regression is a machine learning task that is used to predict the value of the label from a set of related features.

Reference:

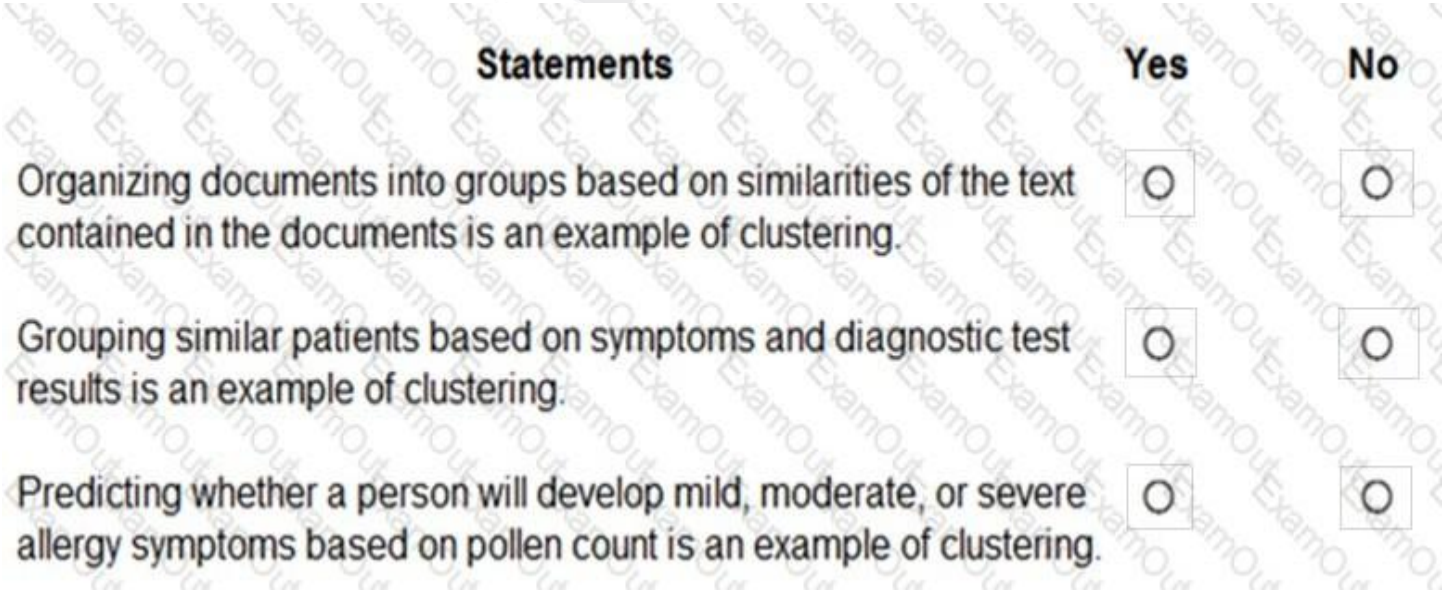
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/tasks

Question #:13 - (Exam Topic 2)

NO: 47 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.



Answer:

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.	○	○

Explanation

Graphical user interface, text, application Description automatically generated

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.	○	○

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

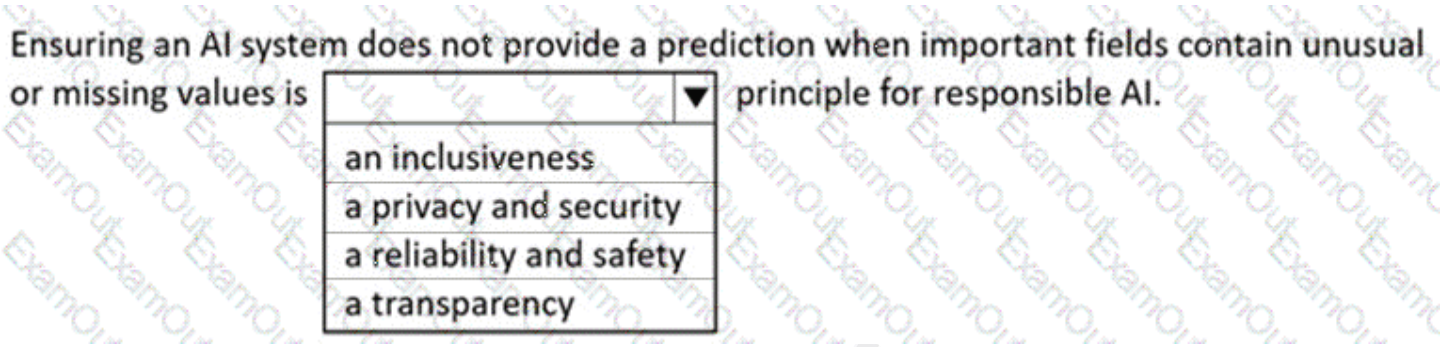
Regression is a machine learning task that is used to predict the value of the label from a set of related features.

Reference:

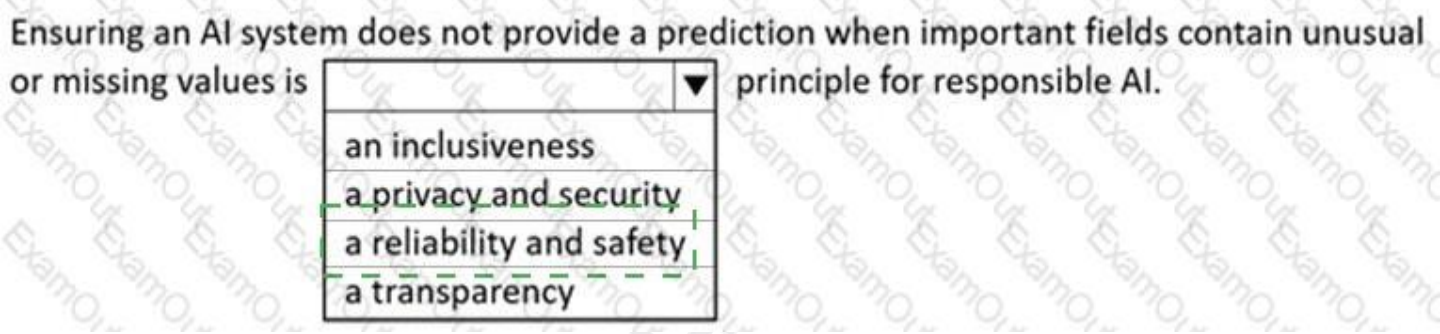
https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/tasks

Question #:14 - (Exam Topic 2)

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

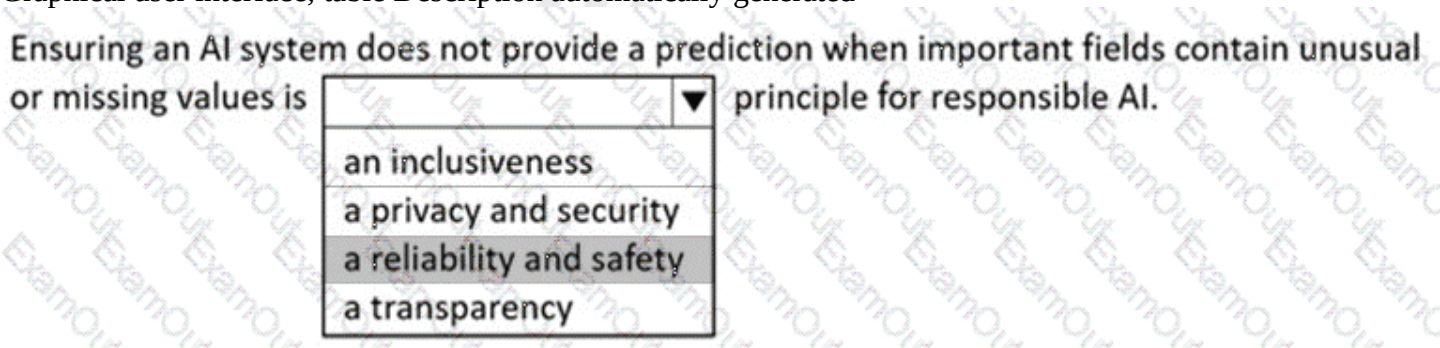


Answer:



Explanation

Graphical user interface, table Description automatically generated



Reference:

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

Question #:15 - (Exam Topic 2)

You use Azure Machine Learning designer to publish an inference pipeline.

Which two parameters should you use to consume the pipeline? 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

Answer: C D

Explanation

https://docs.microsoft.com/en-in/learn/modules/create-regression-model-azure-machine-learning-designer/deplo

Question #:16 - (Exam Topic 2)

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

Answer: B

Question #:17 - (Exam Topic 2)

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

NOTE: Each correct selection is worth one point.

Answer Area

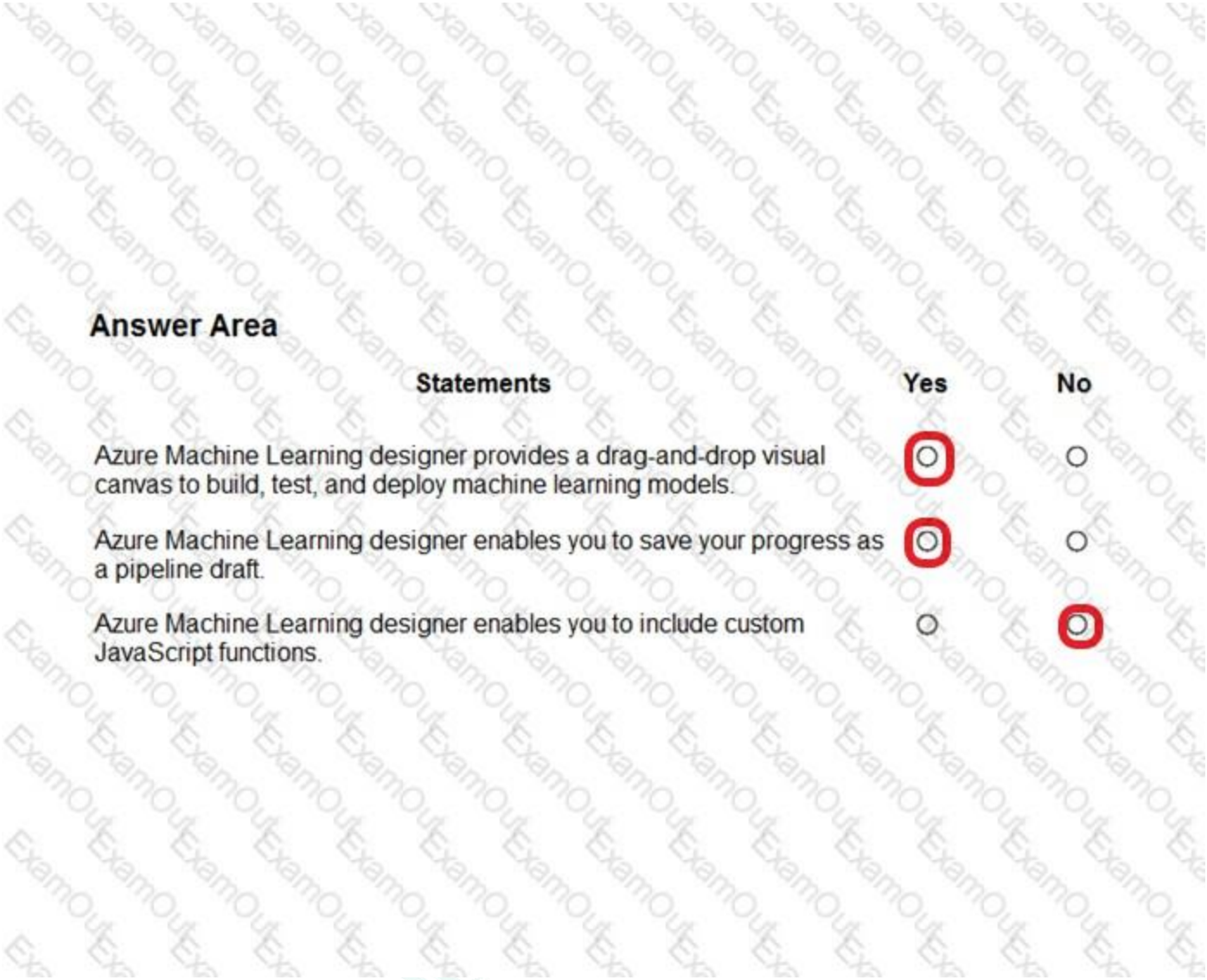
Statements	Yes	No
Azure Machine Learning designer provides a drag-and-drop visual canvas to build, test, and deploy machine learning models.	○	○
Azure Machine Learning designer enables you to save your progress as a pipeline draft.	○	○
Azure Machine Learning designer enables you to include custom JavaScript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

Answer:

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.	○	○

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.

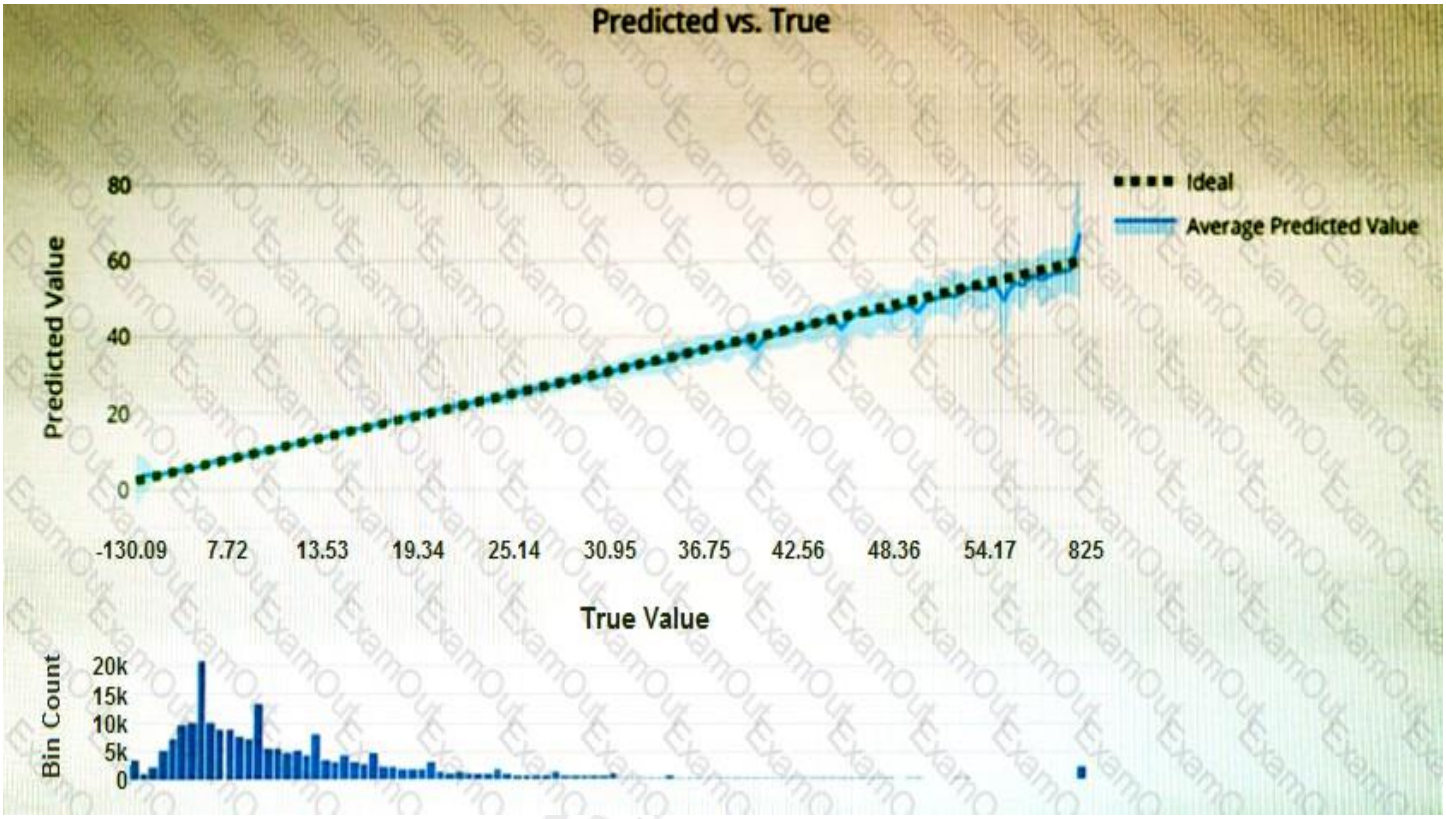
Box 3: No

Reference:

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

Question #:18 - (Exam Topic 2)

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

Answer: B

Explanation

What is a Predicted vs. True chart?

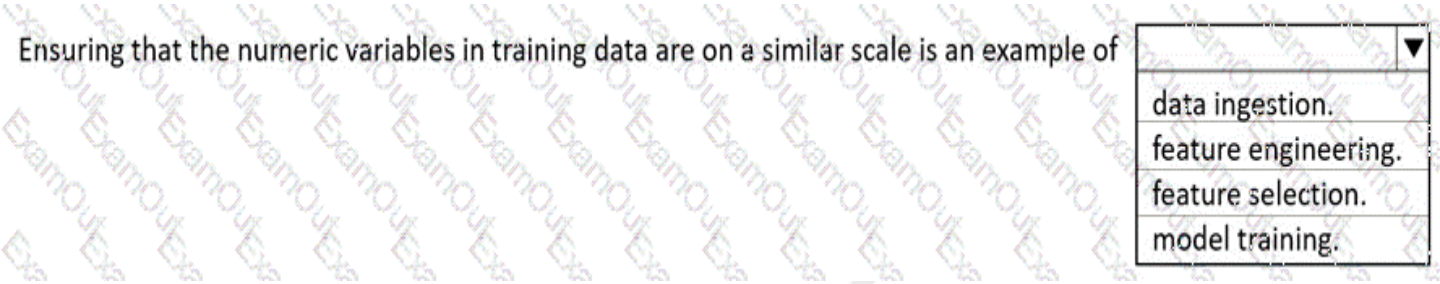
Predicted vs. True shows the relationship between a predicted value and its correlating true value for a regression problem. This graph can be used to measure performance of a model as the closer to the y=x line the predicted values are, the better the accuracy of a predictive model.

Reference:

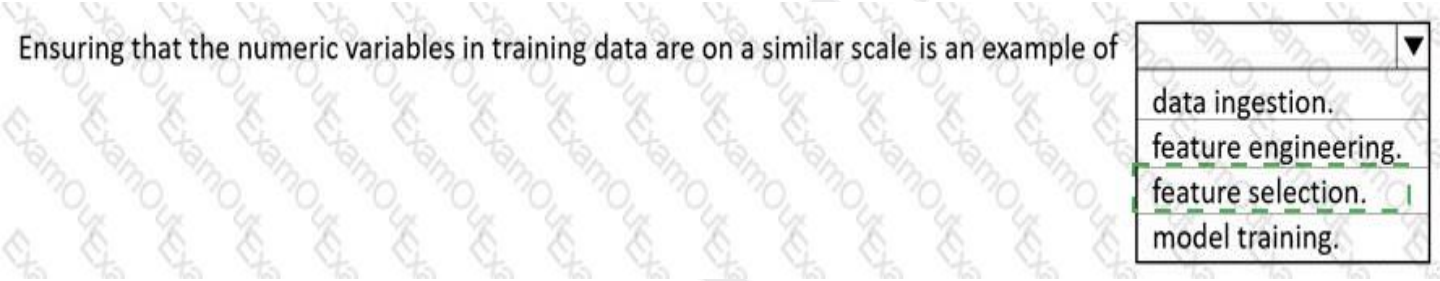
https://docs.microsoft.com/en-us/azure/machine-learning/how-to-understand-automated-m

Question #:19 - (Exam Topic 2)

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

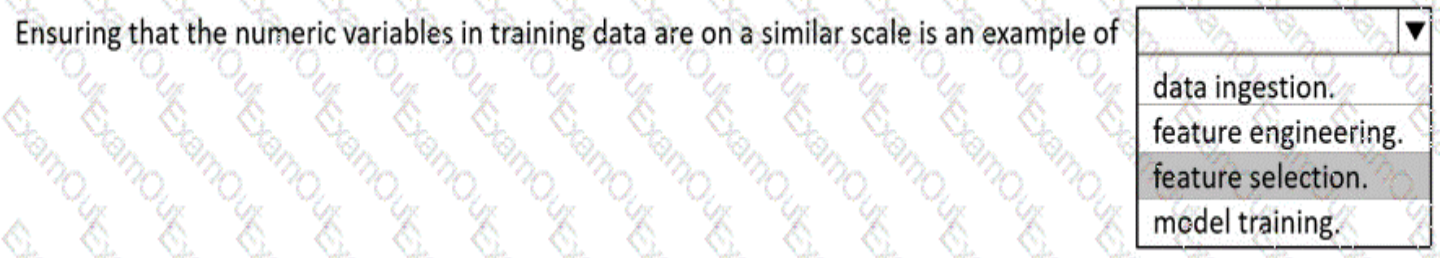


Answer:



Explanation

Text Description automatically generated



Reference:

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

Question #:20 - (Exam Topic 2)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

Answer Area

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

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 #:21 - (Exam Topic 2)

You have the following dataset.

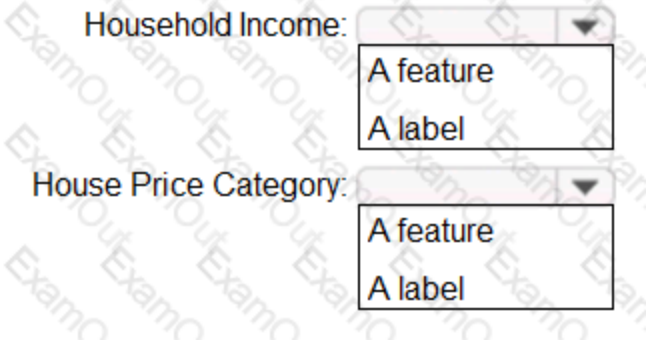
Household Income	Postal Code	House Price Category
20,000	55555	Low
23,000	20541	Middle
80,000	87960	High

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.

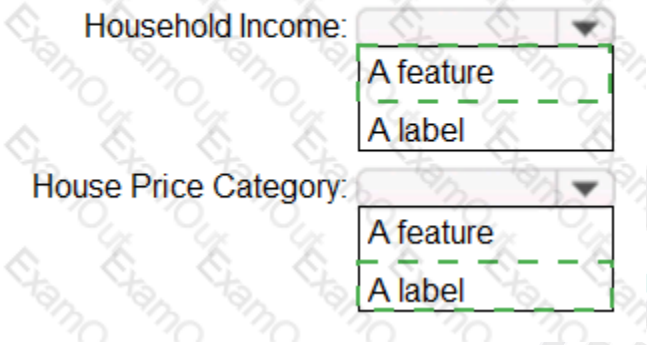
NOTE: Each correct selection is worth one point.

Answer Area

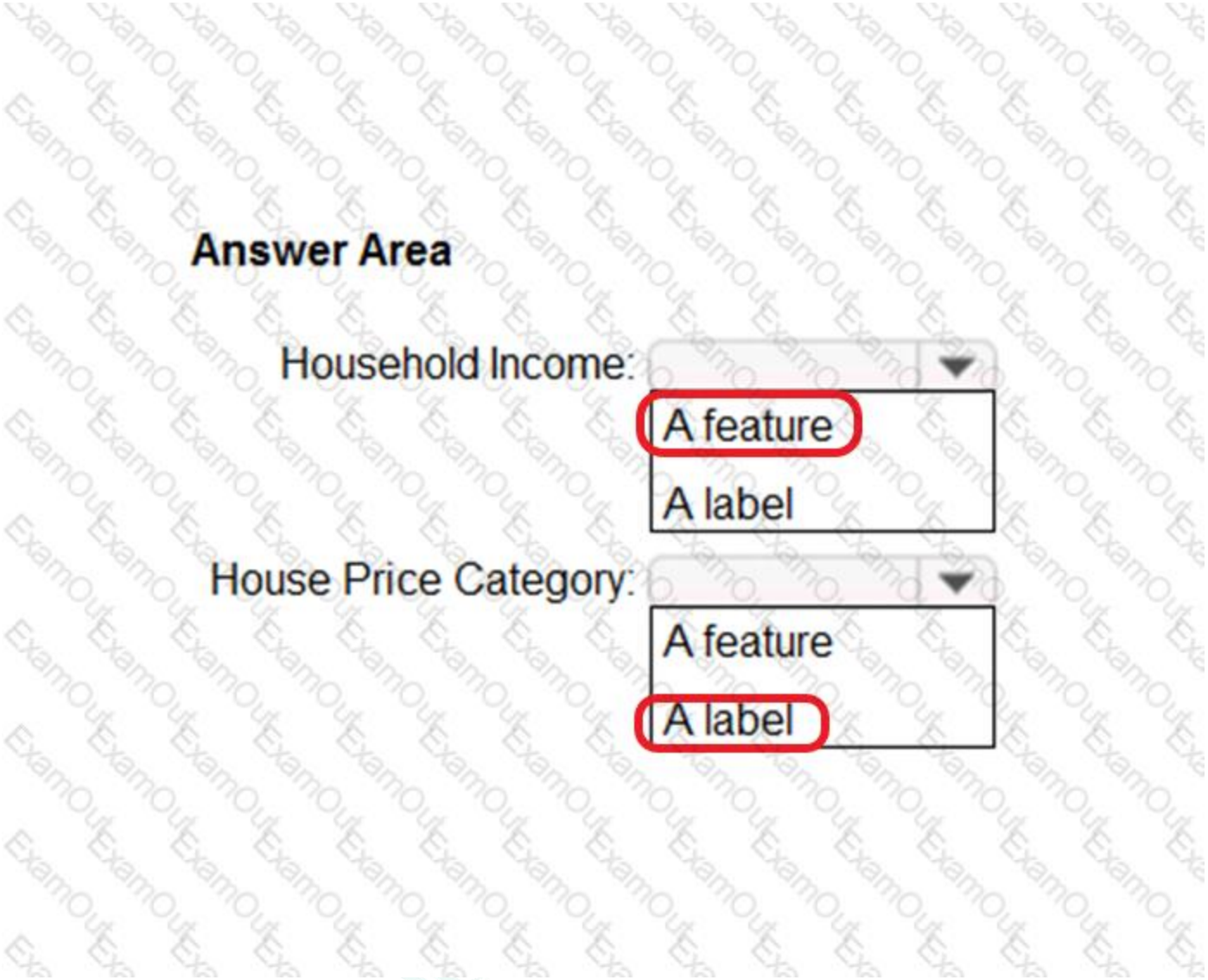


Answer:

Answer Area



Explanation



Box 1: A feature

Box 2: A label

Reference:

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

Question #:22 - (Exam Topic 2)

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

Answer: C

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

Regression is a form of machine learning that is used to predict a **numeric label based on an item's features.**

https://docs.microsoft.com/en-us/learn/modules/create-regression-model-azure-machine-learning-designer/introd

Question #:23 - (Exam Topic 2)

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)

Answer: A

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 #:24 - (Exam Topic 2)

You are building a tool that will process images from retail stores 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

Answer: A

Reference:

https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/overview

Question #:25 - (Exam Topic 2)

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

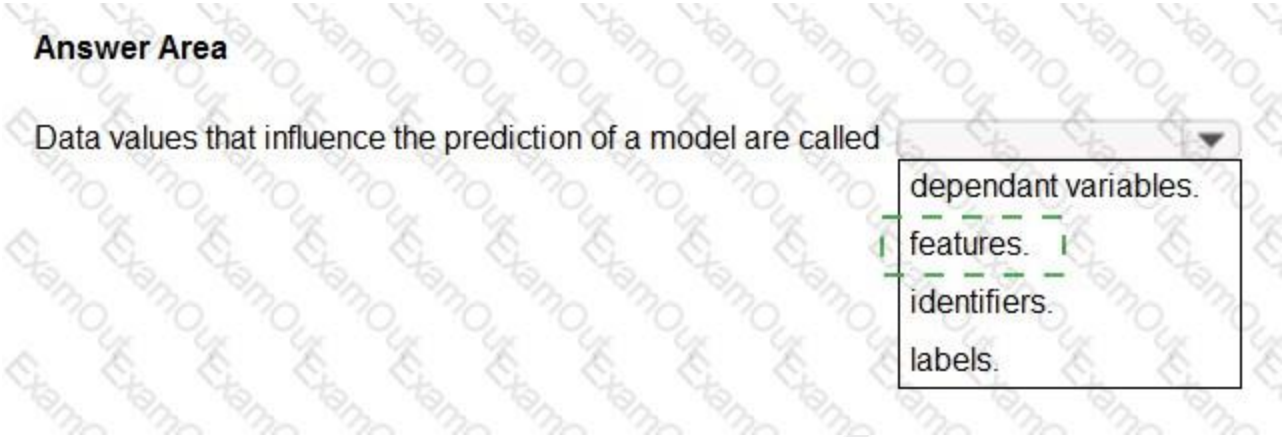
Answer Area

Data values that influence the prediction of a model are called [▼]

- dependant variables.
- features.
- identifiers.
- labels.

Answer:

Answer Area



Explanation

Features

Question #:26 - (Exam Topic 2)

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. Ink Recognizer

D. Custom Vision

Answer: A

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 #:27 - (Exam Topic 2)

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

Answer Area

The ability to extract subtotals and totals from a receipt is a capability of the [ ] service.

- Custom Vision
- Form Recognizer
- Ink Recognizer
- Text Analytics

Answer:

Answer Area

The ability to extract subtotals and totals from a receipt is a capability of the [ ] service.

- Custom Vision
- Form Recognizer
- Ink Recognizer
- Text Analytics

Explanation

Answer Area

The ability to extract subtotals and totals from a receipt is a capability of the [ ] service.

- Custom Vision
- Form Recognizer
- Ink Recognizer
- Text Analytics

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 #:28 - (Exam Topic 2)

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

Answer: C

Reference:

https://docs.microsoft.com/en-us/learn/modules/create-classification-model-azure-machine-learning-designer/int

Question #:29 - (Exam Topic 2)

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

A. classification

B. regression

C. clustering

Answer: C

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 #:30 - (Exam Topic 2)

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

Answer: A C

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.

Reference:

https://docs.microsoft.com/en-us/dotnet/machine-learning/resources/metrics

Question #:31 - (Exam Topic 2)

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

Answer Area

A banking system that predicts whether a loan will be repaid is an example of the [ ] type of machine learning.

- classification
- regression
- clustering

Answer:

Answer Area

A banking system that predicts whether a loan will be repaid is an example of the [classification / regression / clustering] type of machine learning.

Explanation

Classification

Question #:32 - (Exam Topic 2)

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

Answer: B

Explanation

The label is the column you want to predict. The identified Features are 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 #:33 - (Exam Topic 2)

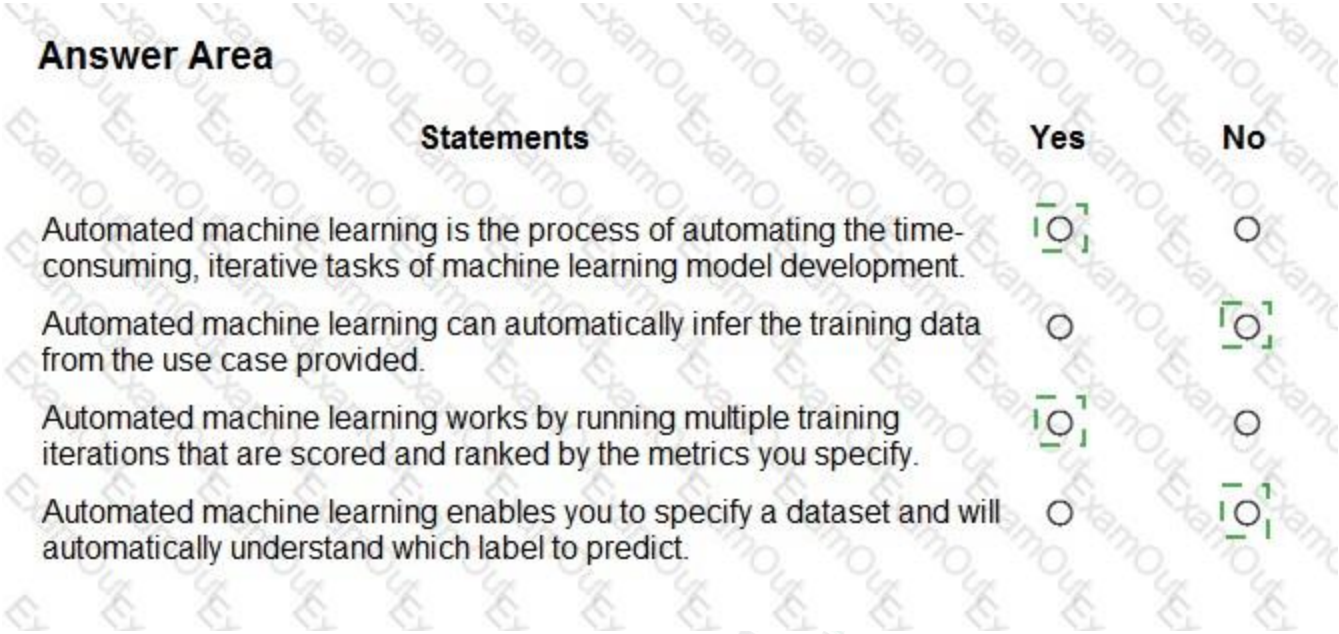
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

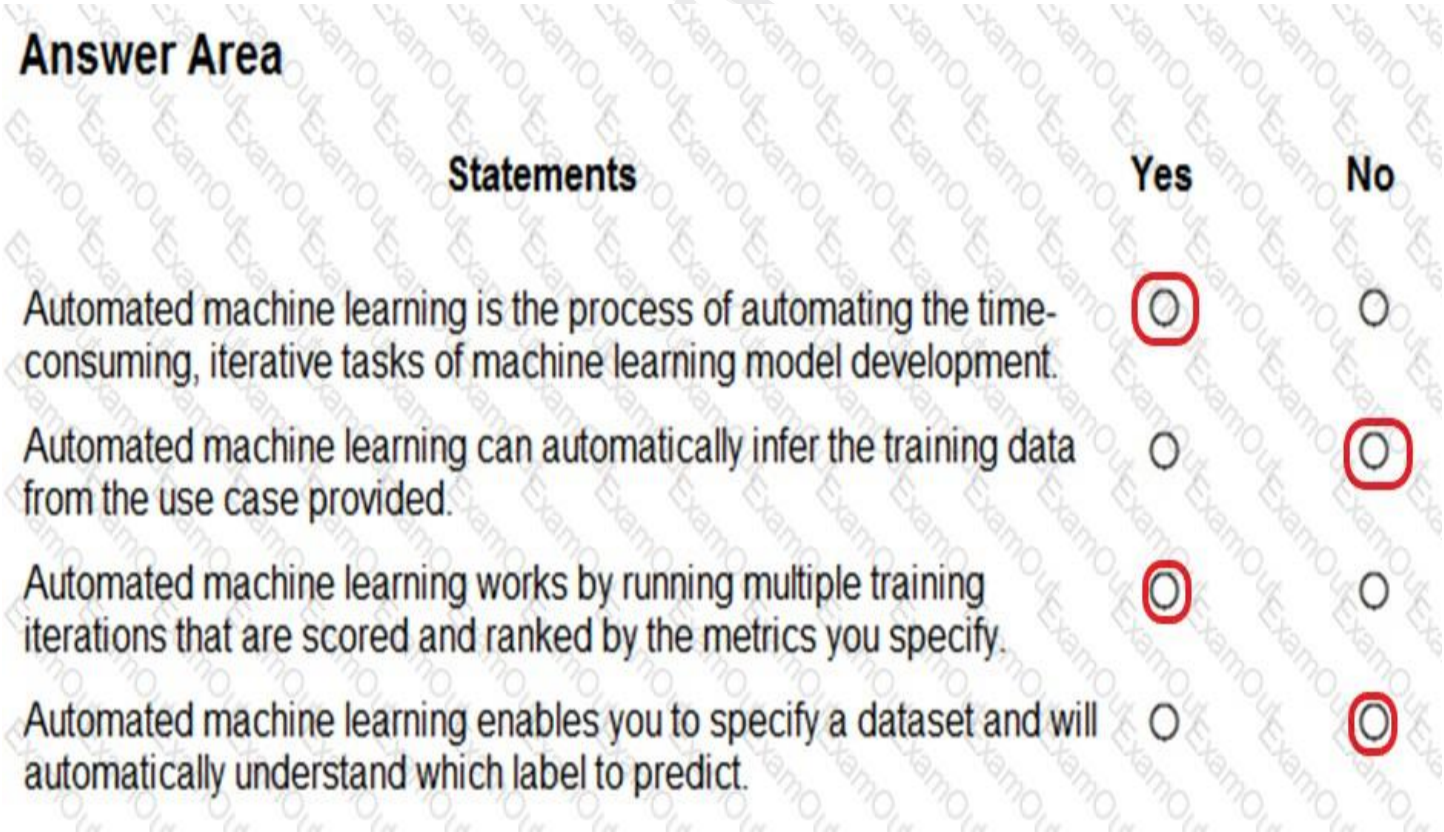
Answer Area

Statements	Yes	No
Automated machine learning is the process of automating the time-consuming, iterative tasks of machine learning model development.	○	○
Automated machine learning can automatically infer the training data from the use case provided.	○	○
Automated machine learning works by running multiple training iterations that are scored and ranked by the metrics you specify.	○	○
Automated machine learning enables you to specify a dataset and will automatically understand which label to predict.	○	○

Answer:



Explanation



Box 1: Yes

Automated machine learning, also referred to as automated ML or AutoML, is the process of automating the time consuming, iterative tasks of machine learning model development. It allows data scientists, analysts, and developers to build ML models with high scale, efficiency, and productivity all while sustaining model quality.

Box 2: No

Box 3: Yes

During training, Azure Machine Learning creates a number of pipelines in parallel that try different algorithms and parameters for you. The service iterates through ML algorithms paired with feature selections, where each iteration produces a model with a training score. The higher the score, the better the model is considered to "fit" your data. It will stop once it hits the exit criteria defined in the experiment.

Box 4: No

Apply automated ML when you want Azure Machine Learning to train and tune a model for you using the target metric you specify.

The label is the column you want to predict.

Reference:

https://azure.microsoft.com/en-us/services/machine-learning/automatedml/#features

Question #:34 - (Exam Topic 2)

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

Answer Area

Azure Machine Learning designer lets you create machine learning models by

- adding and connecting modules on a visual canvas.
- automatically performing common data preparation tasks.
- automatically selecting an algorithm to build the most accurate model.
- using a code-first notebook experience.

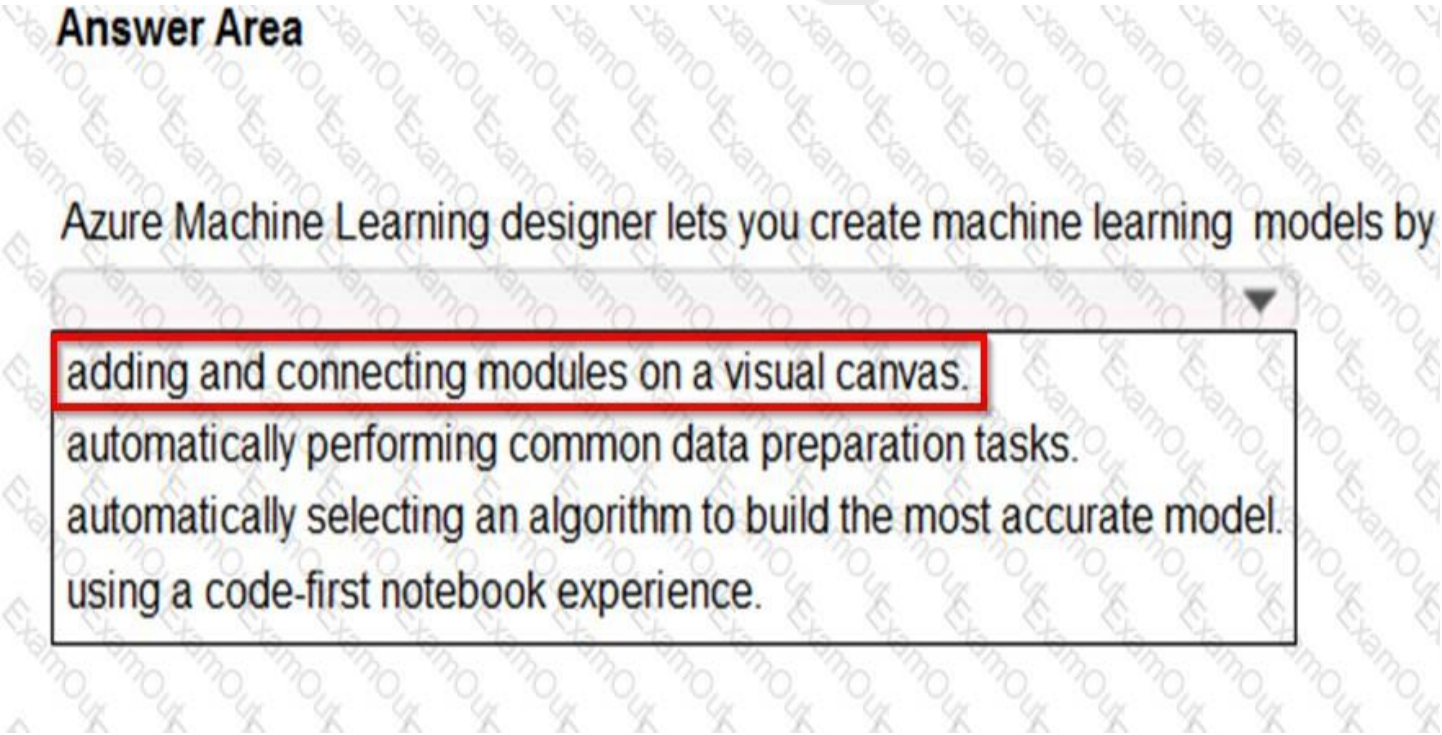
Answer:

Answer Area

Azure Machine Learning designer lets you create machine learning models by

adding and connecting modules on a visual canvas.
automatically performing common data preparation tasks.
automatically selecting an algorithm to build the most accurate model.
using a code-first notebook experience.

Explanation



Reference:

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

Question #:35 - (Exam Topic 2)

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.

Answer: A C

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 #:36 - (Exam Topic 2)

To complete the sentence, select the appropriate option in the 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.

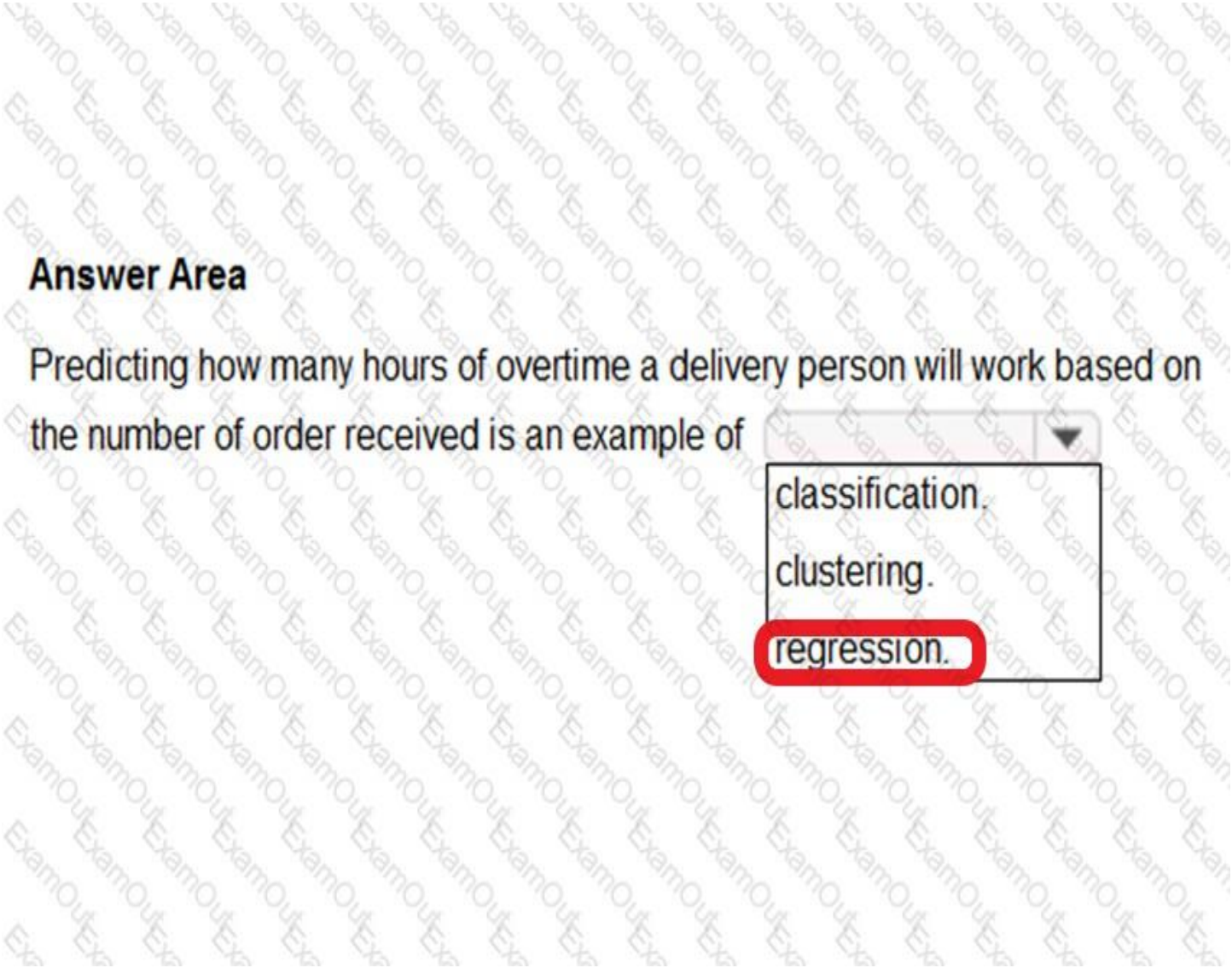
Answer:

Answer Area

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

- classification.
- clustering.
- regression.

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/algorithm-module-reference/linear-regression

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

Regression is a form of machine learning that is used to predict a numeric label based on an item's features.

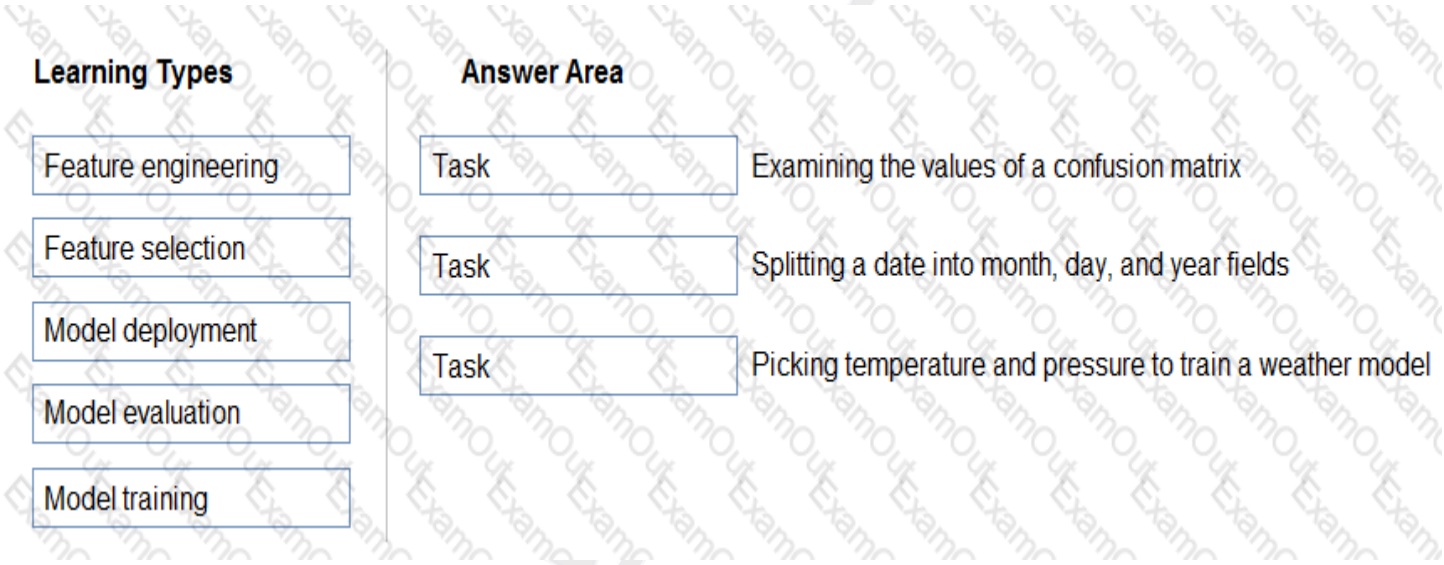
https://docs.microsoft.com/en-us/learn/modules/create-regression-model-azure-machine-learning-designer/introd

Question #:37 - (Exam Topic 2)

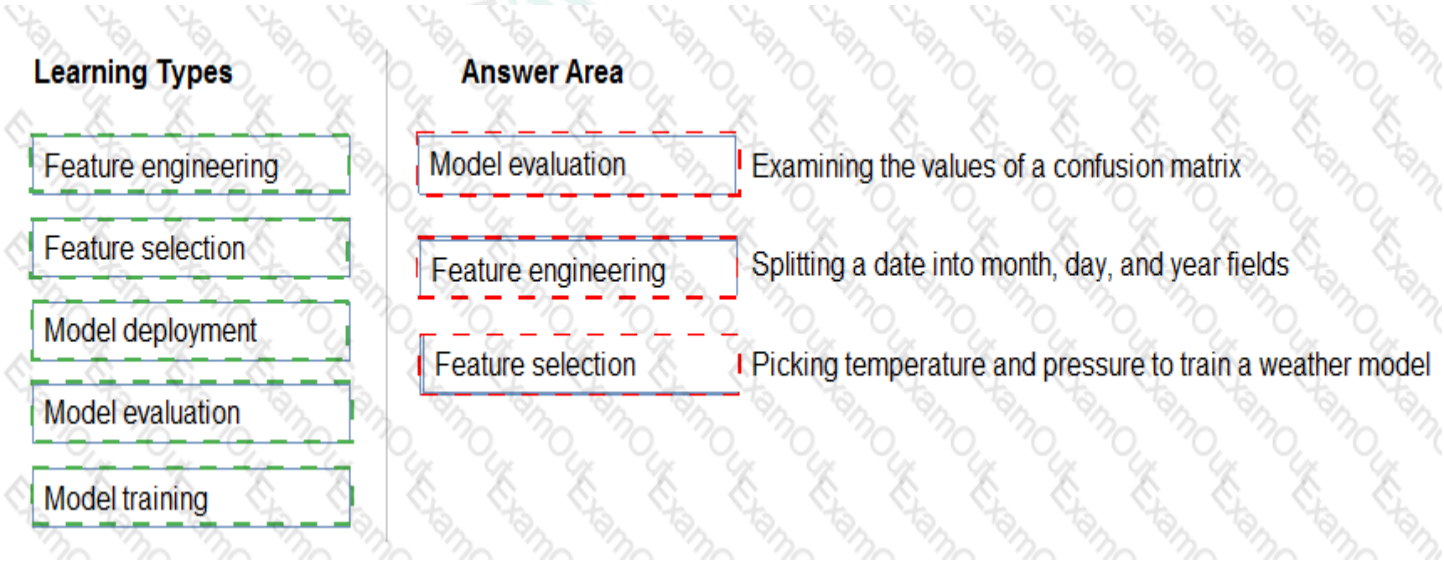
Match the machine learning tasks to the appropriate scenarios.

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.



Answer:



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 #:38 - (Exam Topic 2)

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

Answer: C

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

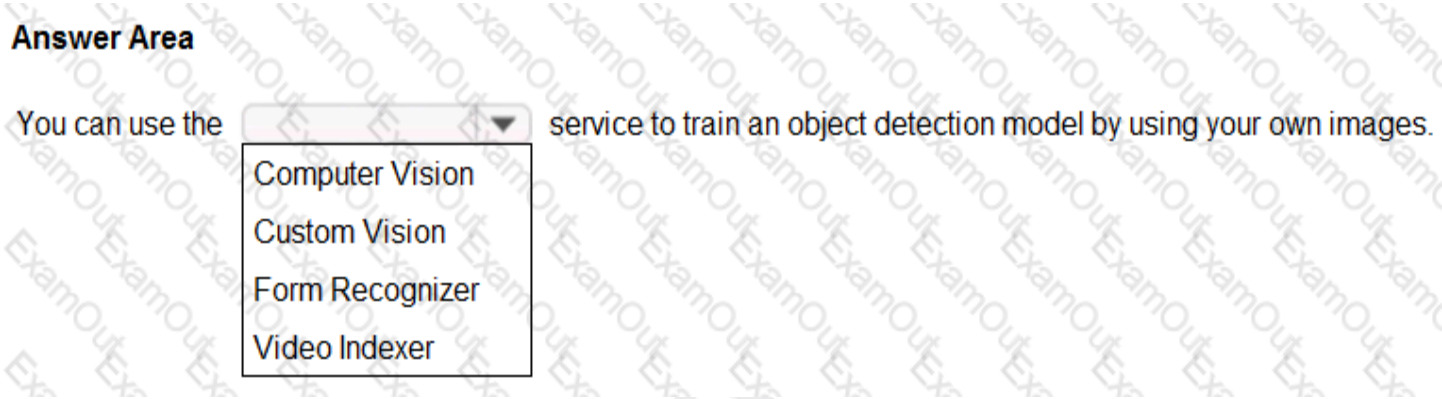
Reference:

https://docs.microsoft.com/en-us/azure/machine-learning/how-to-configure-cross-validation-data-splits2

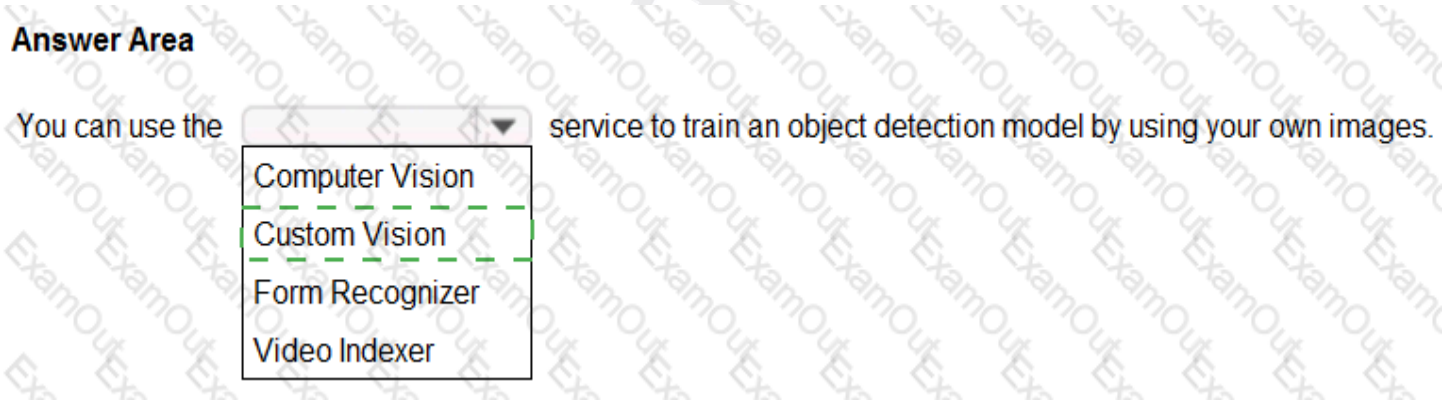
Topic 3, Describe features of computer vision workloads on Azure

Question #:1 - (Exam Topic 3)

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



Answer:



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.

Reference:

https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/home

custom vision - This is a type of computer vision service which helps in building/training models using user provided data

Creating an object detection solution with Custom Vision consists of three main tasks. **First you must use upload and tag images,** then you can train the model, and finally you must publish the model so that client applications can use it to generate predictions.

https://docs.microsoft.com/en-us/learn/modules/detect-objects-images-custom-vision/2-object-detection-azure

Question #:2 - (Exam Topic 3)

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. Computer Vision

B. Face

C. Text Analytics

D. Form Recognizer

Answer: B

Question #:3 - (Exam Topic 3)

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.

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:

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.	○	○

Explanation

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.	○	●

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 #:4 - (Exam Topic 3)

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. Identity the retailer from a receipt.

Answer: A D

Reference:

https://azure.microsoft.com/en-gb/services/cognitive-services/form-recognizer/#features

Question #:5 - (Exam Topic 3)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

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.	○	○

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 #:6 - (Exam Topic 3)

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

Answer: B

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 #:7 - (Exam Topic 3)

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)

Answer: D

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 #:8 - (Exam Topic 3)

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

Answer: C

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 #:9 - (Exam Topic 3)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

Answer Area

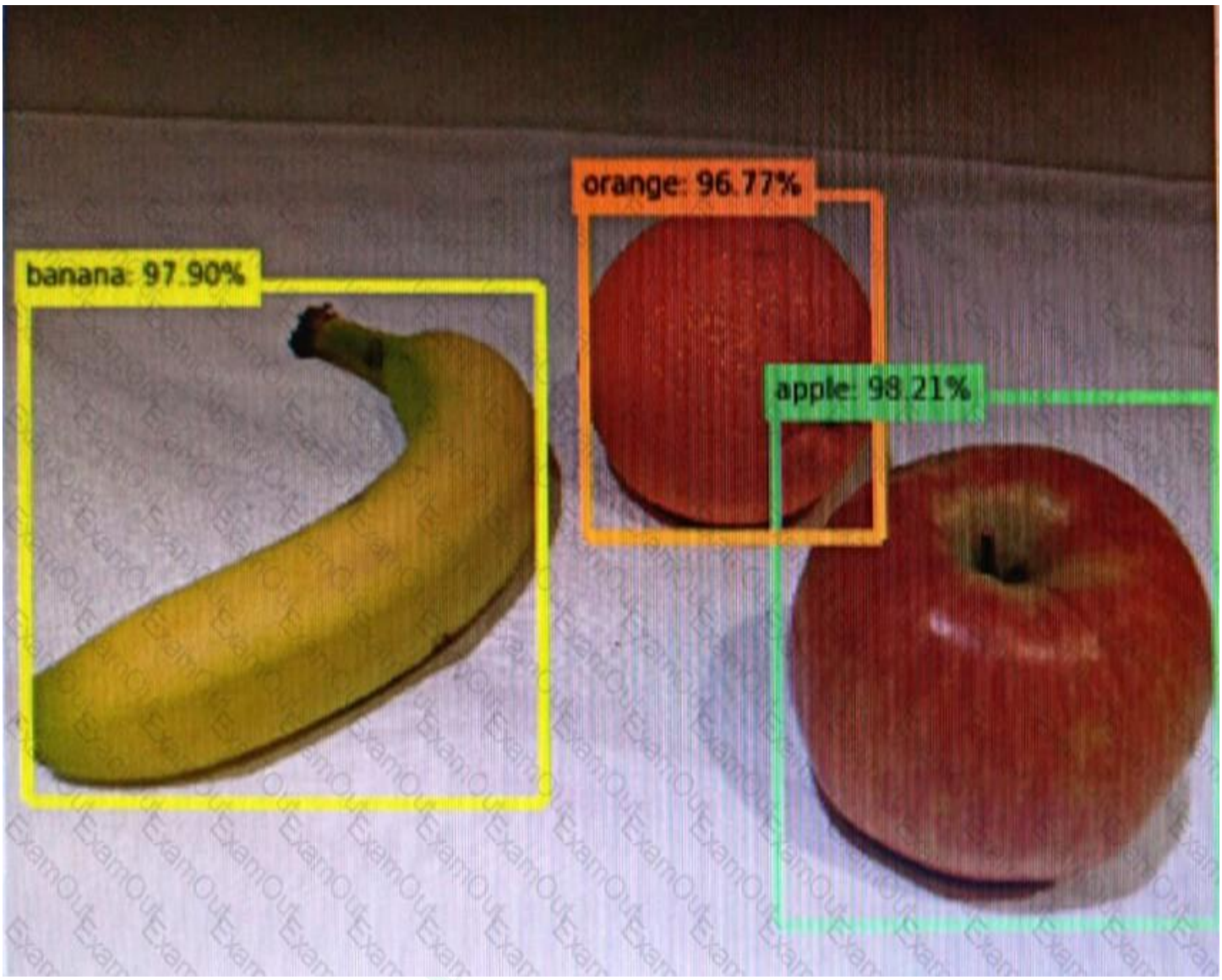
Statements	Yes	No
When creating an object detection model in the Azure AI Custom Vision service, you must choose a classification type of either **Multilabel** or **Multiclass**.	○	●
You can create an object detection model in the Azure AI Custom Vision service to find the location of items within an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

Reference:

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

Question #:10 - (Exam Topic 3)

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. semantic segmentation

C. optical character recognition (OCR)

D. image classification

Answer: A

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:

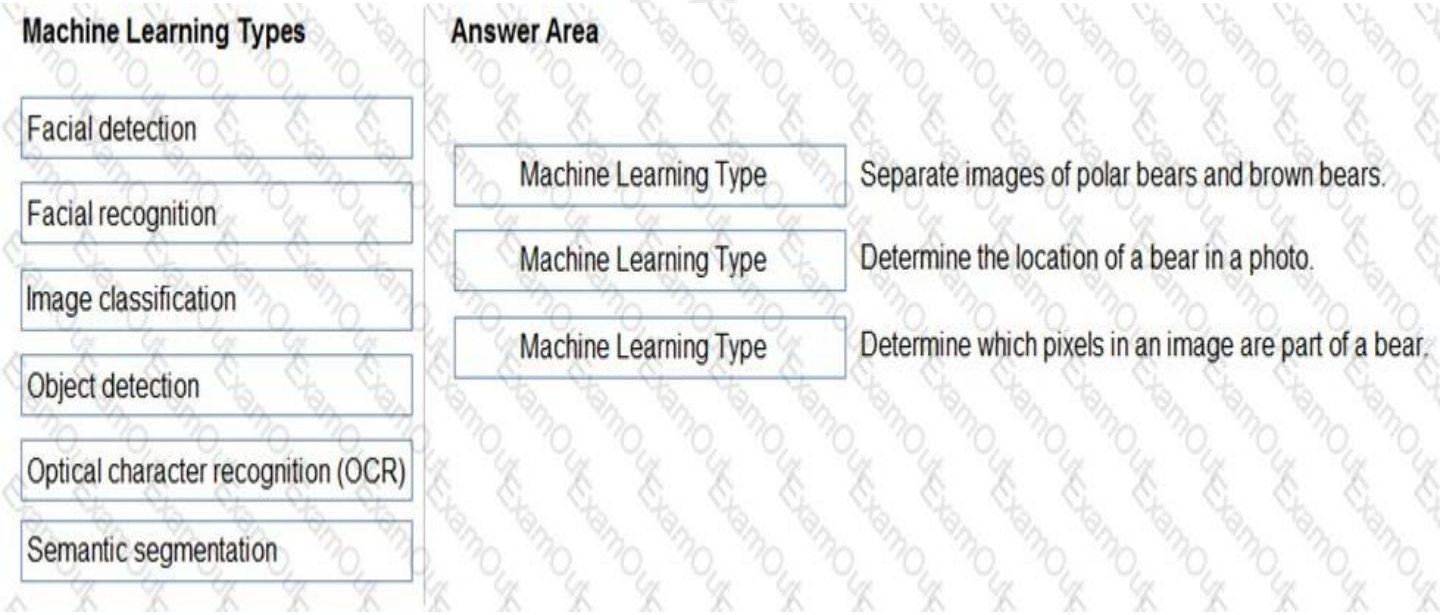
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-object-detection

Question #:11 - (Exam Topic 3)

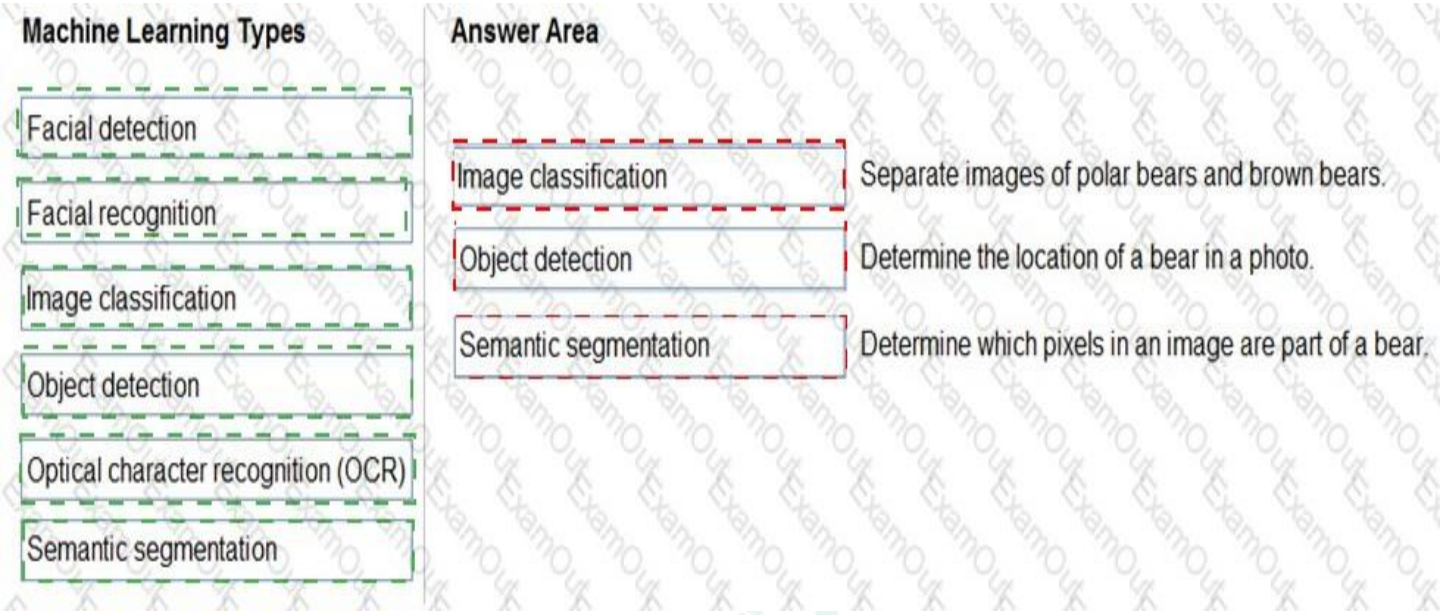
Match the types of machine learning to the appropriate scenarios.

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.



Answer:



Explanation

Graphical user interface, text, application Description automatically generated

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 #:12 - (Exam Topic 3)

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

Answer: D

Question #:13 - (Exam Topic 3)

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.

Answer: B C

Question #:14 - (Exam Topic 3)

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.

Answer: B C

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

Detect faces in an image - **Face API**

Microsoft Azure provides multiple cognitive services that you can use to detect and analyze faces, including:

Computer Vision, which offers face detection and some basic face analysis, such as determining age.

Video Indexer, which you can use to detect and identify faces in a video.

Face, which offers pre-built algorithms that can detect, recognize, and analyze faces.

Recognize hand written text - **Read API**

The Read API is a better option for scanned documents that have a lot of text. The Read API also has the ability to automatically determine the proper recognition model

Question #:15 - (Exam Topic 3)

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

Answer: B

Explanation

Optical character recognition (OCR) allows you to extract printed or handwritten text from images and documents.

Reference:

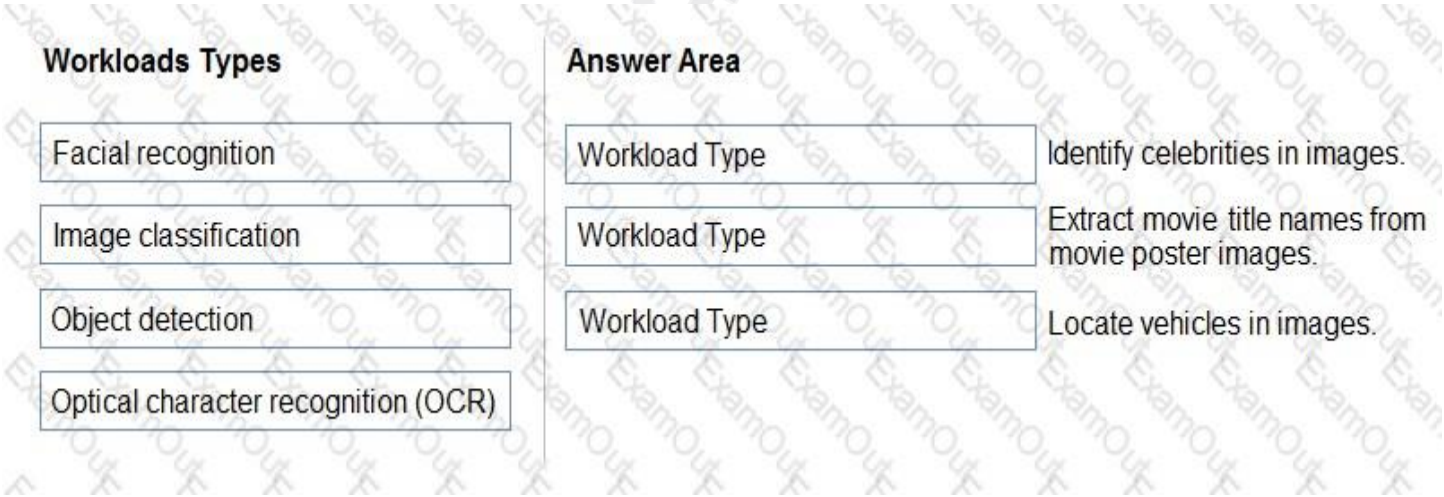
https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-ocr

Question #:16 - (Exam Topic 3)

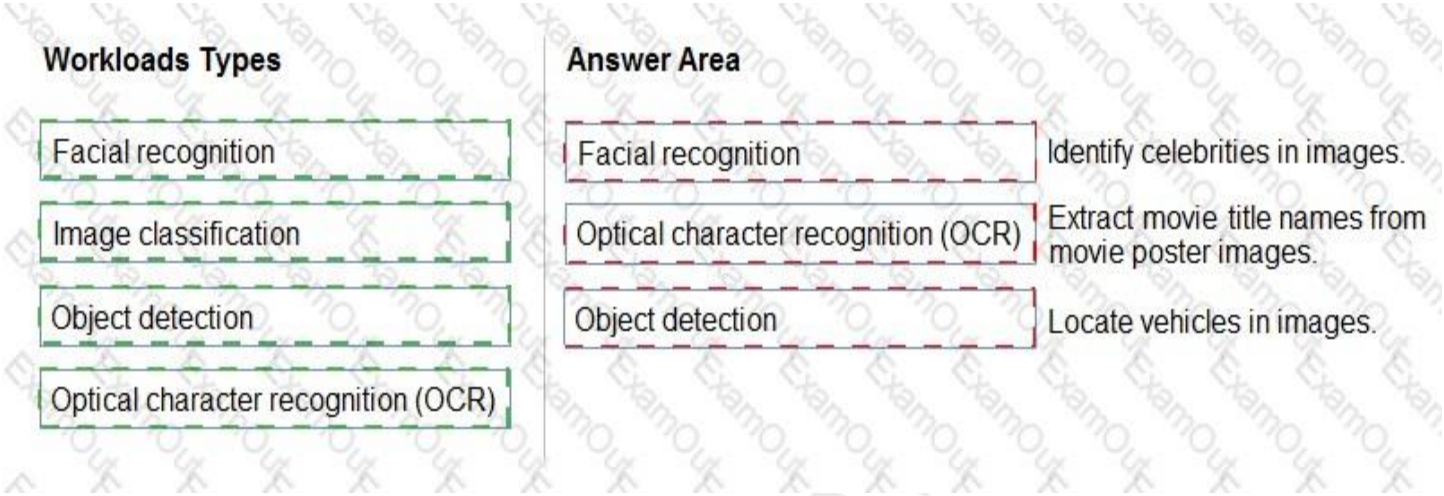
Match the types of computer vision to the appropriate scenarios.

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.



Answer:



Explanation

Box 1: Facial recognition

Face detection that perceives faces and attributes in an image; person identification that matches an individual in your private repository of up to 1 million people; perceived emotion recognition that detects a range of facial expressions like happiness, contempt, neutrality, and fear; and recognition and grouping of similar faces in images.

Box 2: OCR

Box 3: Objection detection

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://azure.microsoft.com/en-us/services/cognitive-services/face/

https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-object-detection

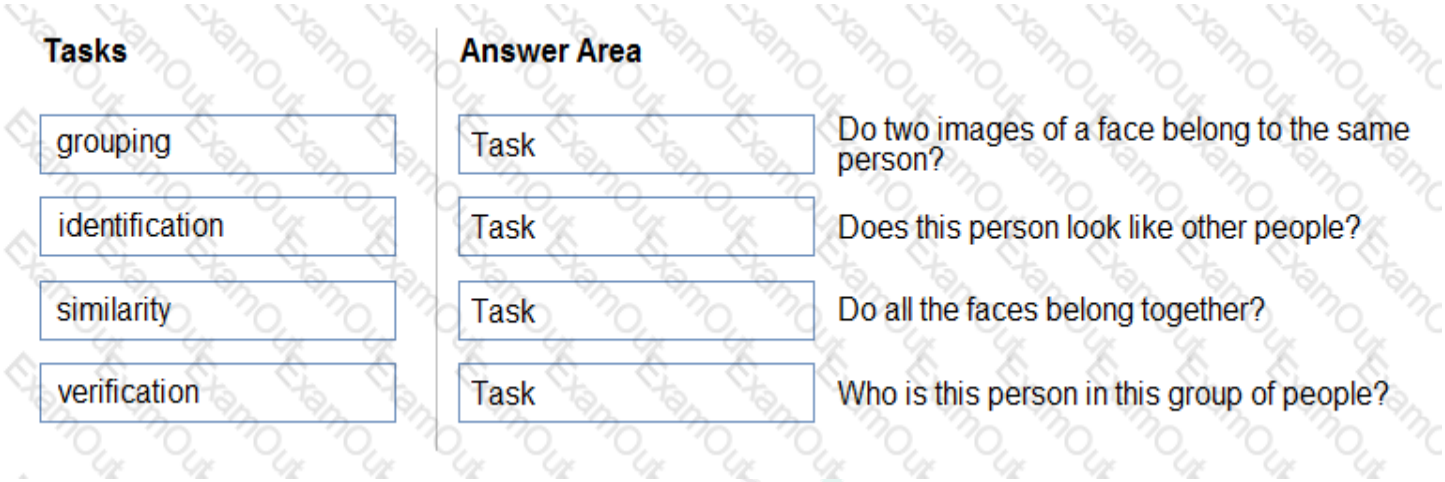
Question #:17 - (Exam Topic 3)

Match the facial recognition tasks to the appropriate questions.

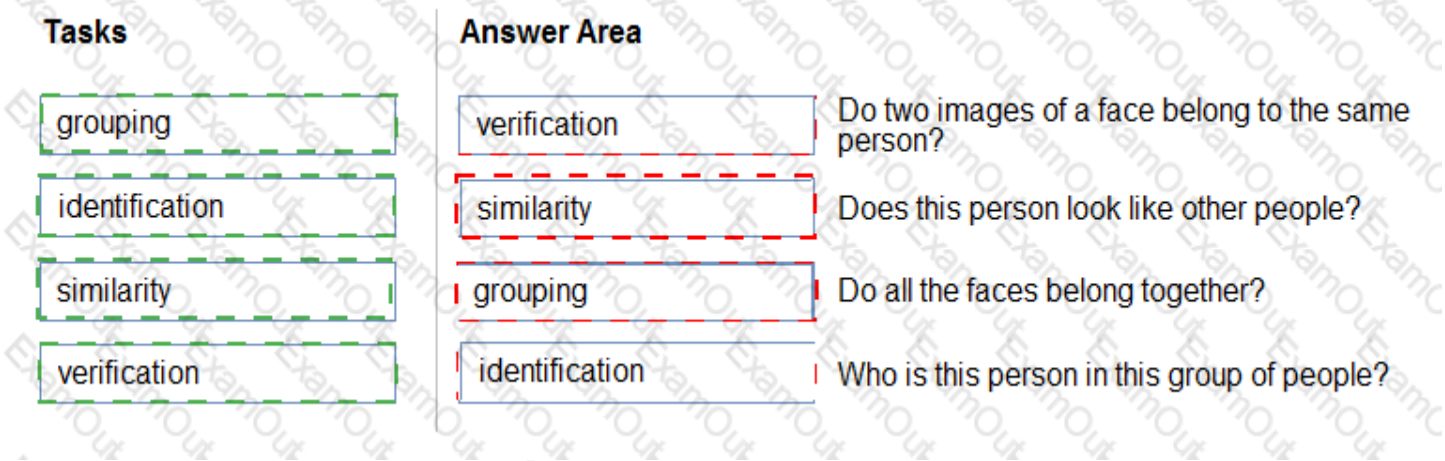
To answer, drag the appropriate task from the column on the left to its question on the right. Each task may be

used once, more than once, or not at all.

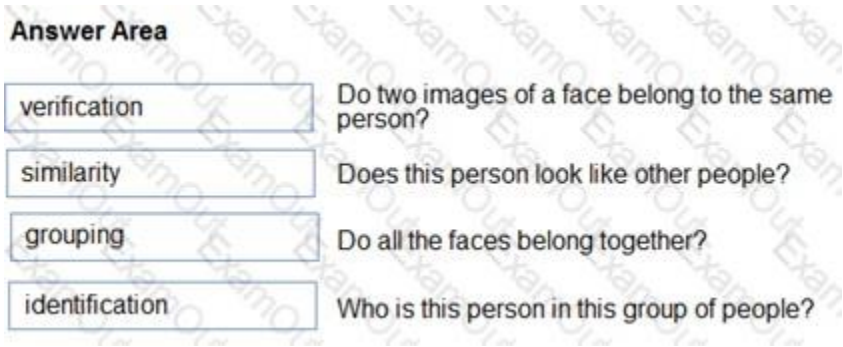
NOTE: Each correct selection is worth one point.



Answer:



Explanation



Box 1: verification

Face verification: Check the likelihood that two faces belong to the same person and receive a confidence score.

Box 2: similarity

Box 3: Grouping

Box 4: identification

Face detection: Detect one or more human faces along with attributes such as: age, emotion, pose, smile, and facial hair, including 27 landmarks for each face in the image.

Reference:

https://azure.microsoft.com/en-us/services/cognitive-services/face/#features

Topic 4, Describe features of Natural Language Processing (NLP) workloads on Azure

Question #:1 - (Exam Topic 4)

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

Answer: B D

Reference:

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

Question #:2 - (Exam Topic 4)

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

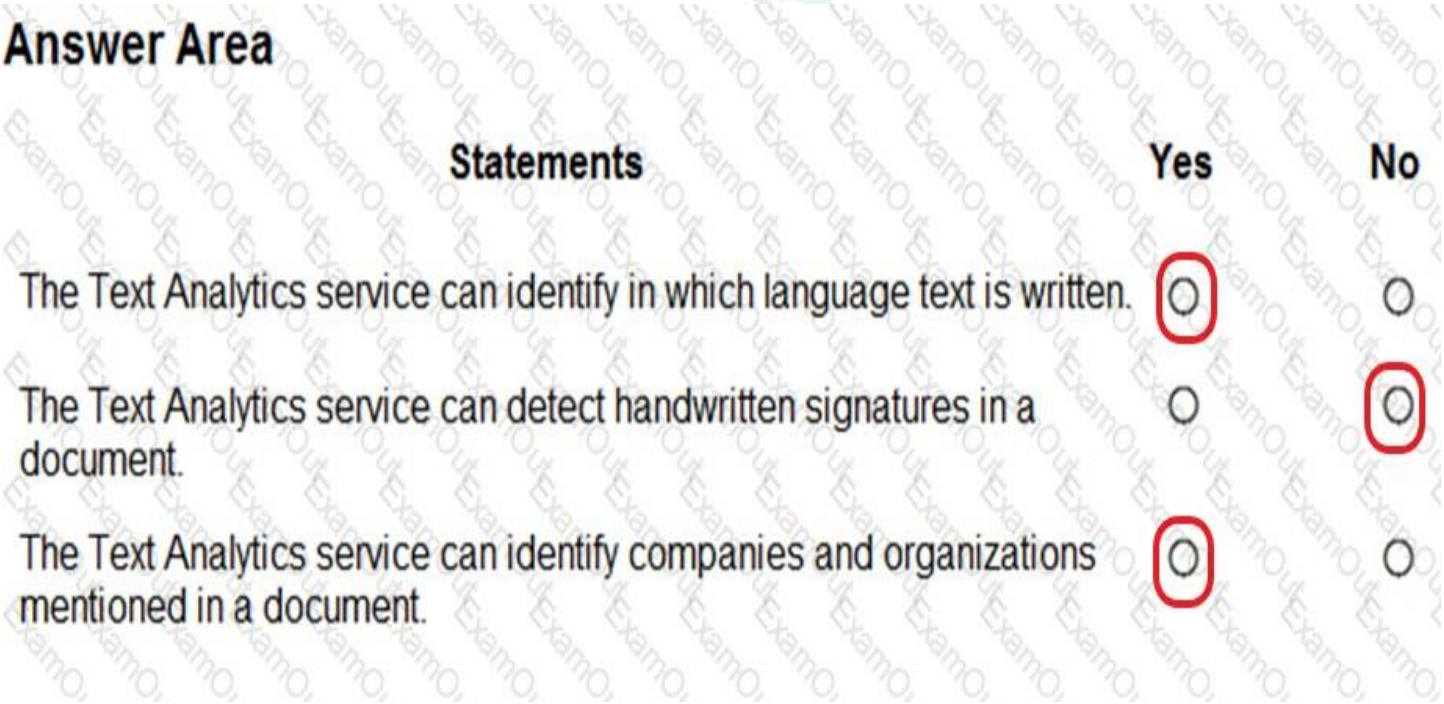
NOTE: Each correct selection is worth one point.

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:

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 #:3 - (Exam Topic 4)

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

Answer: D

Reference:

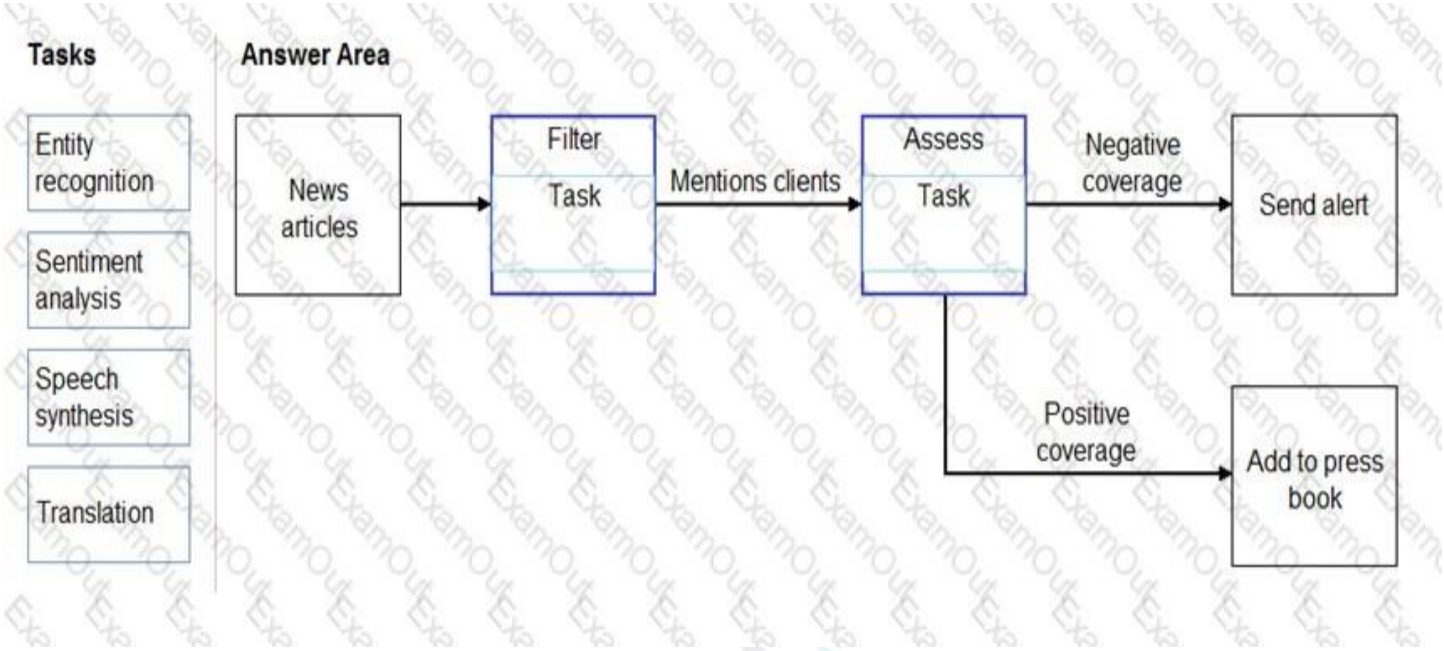
https://docs.microsoft.com/en-us/azure/cognitive-services/QnAMaker/Overview/overview

Question #:4 - (Exam Topic 4)

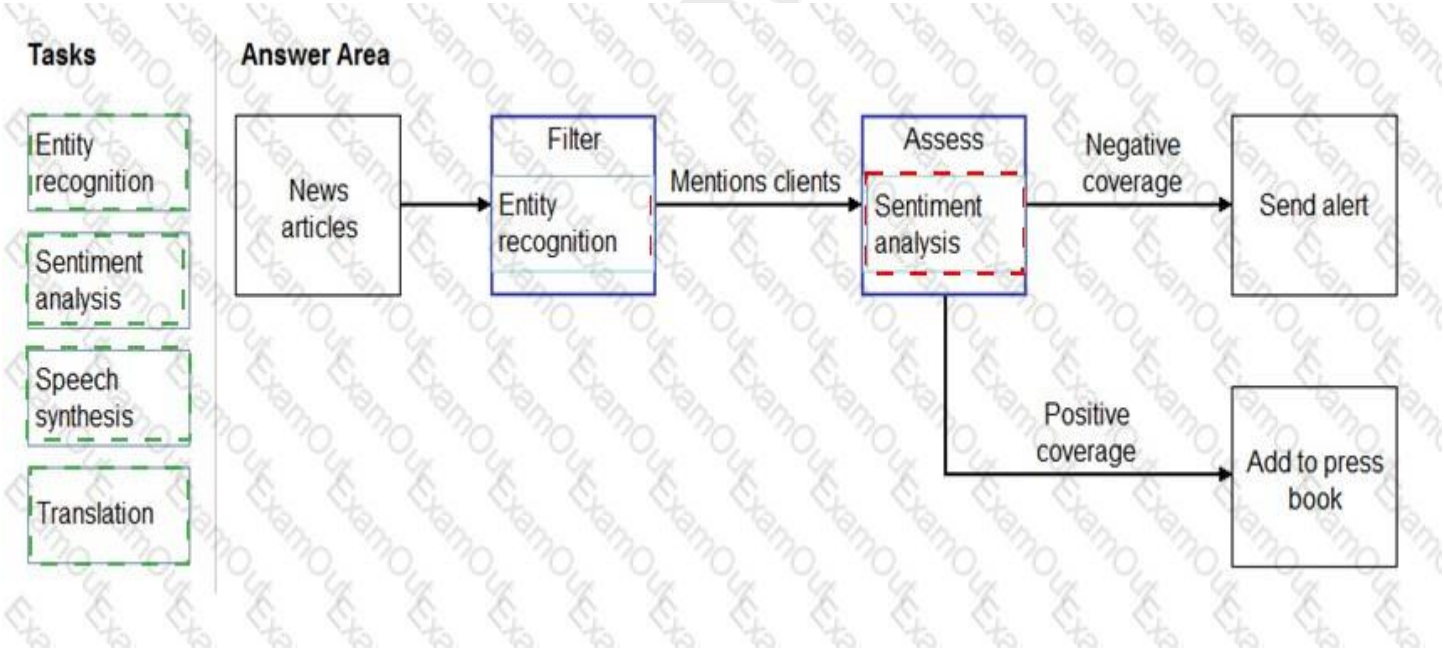
You need to scan the news for articles about your customers and alert employees when there is a negative article. Positive articles must be added to a press book.

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.

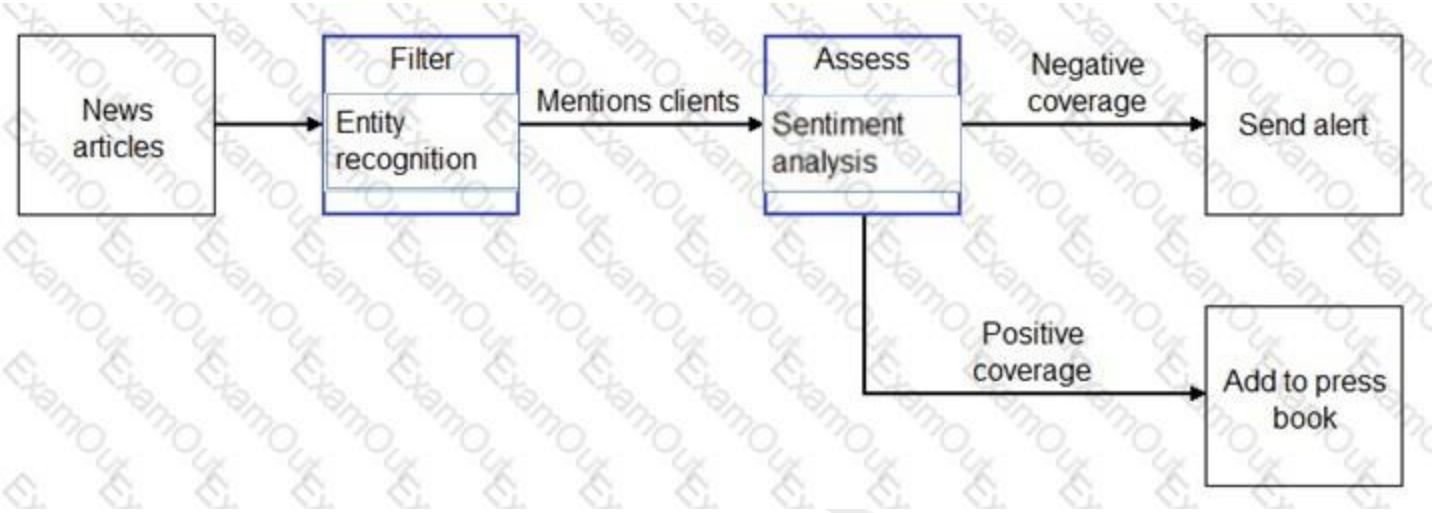


Answer:



Explanation

Diagram Description automatically generated



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-sentimen

Question #:5 - (Exam Topic 4)

To complete the sentence, select the appropriate option in the 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.

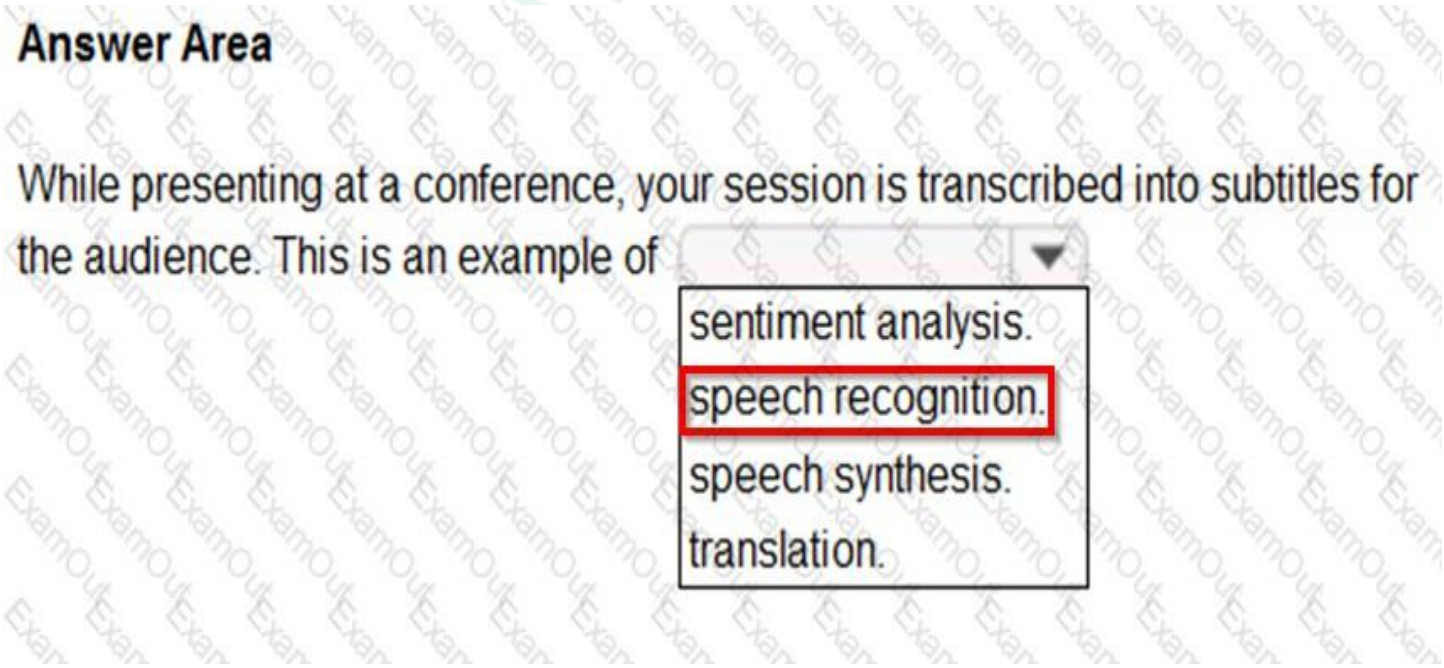
Answer:

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.

Explanation



Reference:

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

Speech recognition means Speech to Text. In the above example as a person speaks the words are converted into text of the same language. Hence Speech to Text also called Speech recognition is the right answer.

Speech recognition - the ability to detect and interpret spoken input.

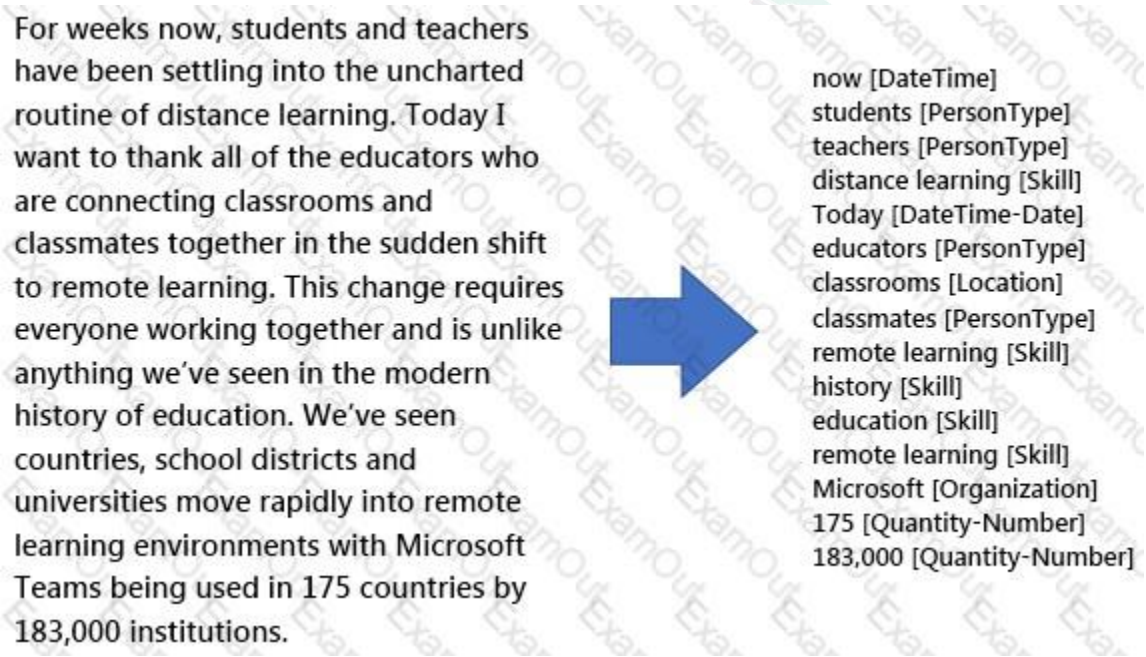
Speech synthesis - the ability to generate spoken output.

https://docs.microsoft.com/en-us/learn/modules/recognize-synthesize-speech/1-introduction

Question #:6 - (Exam Topic 4)

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

Answer: A

Explanation

https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/overview

You can provide the Text Analytics service with unstructured text and it will return a **list of entities** in the text that it recognizes. You can provide the Text Analytics service with unstructured text and it will return a list of *entities* in the text that it recognizes. The service can also provide links to more information about that entity on the web. An entity is essentially an item of a particular type or a category; and in some cases, subtype, such as those as shown in the following table.

https://docs.microsoft.com/en-us/learn/modules/analyze-text-with-text-analytics-service/2-get-started-azure

Question #:7 - (Exam Topic 4)

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

Answer: B

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 #:8 - (Exam Topic 4)

In which scenario should you use key phrase extraction?

A. translating a set of documents from English to German

B. generating captions for a video based on the audio track

C. identifying whether reviews of a restaurant are positive or negative

D. identifying which documents provide information about the same topics

Answer: D

Question #:9 - (Exam Topic 4)

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)

Answer: A

Explanation

Press release is a written communication. Speech wouldn't make sense. Plus, the Speech service doesn't translate languages, it "translates" audio into text, and vice versa.

https://docs.microsoft.com/en-us/learn/modules/translate-text-with-translation-service/2-get-started-azure

Question #:10 - (Exam Topic 4)

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 Al character in a computer game that speaks audibly to a player

Answer: A D

Explanation

Azure Text to Speech is a Speech service feature that converts text to lifelike speech.

Reference:

https://azure.microsoft.com/en-in/services/cognitive-services/text-to-speech/

Question #:11 - (Exam Topic 4)

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

Answer: D

Reference:

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

Question #:12 - (Exam Topic 4)

You are developing a Chabot solution in Azure.

Which service should you use to determine a user's intent?

A. Translator

B. Azure Cognitive Search

C. Speech

D. Language

Answer: B

Explanation

Language Understanding (LUIS) is a cloud-based API 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.

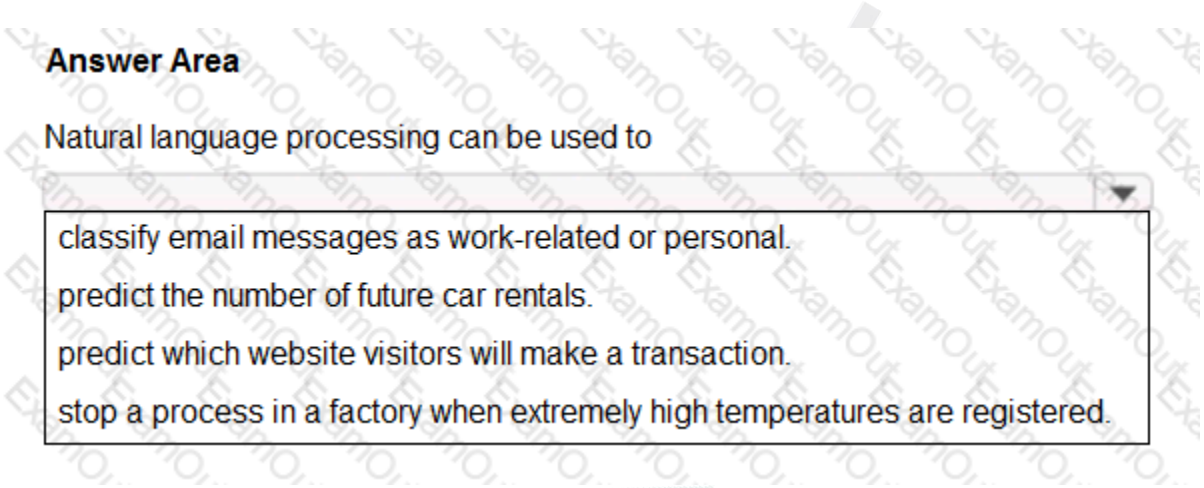
Design your LUIS model with categories of user intentions called intents. Each intent needs examples of user utterances. Each utterance can provide data that needs to be extracted with machine-learning entities.

Reference:

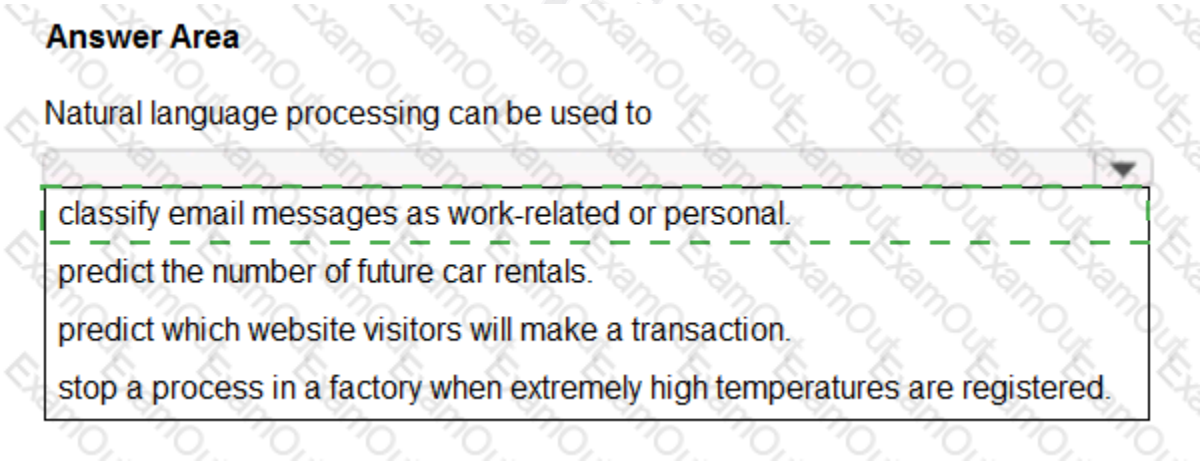
https://docs.microsoft.com/en-us/azure/cognitive-services/luis/what-is-luis

Question #:13 - (Exam Topic 4)

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



Answer:



Explanation

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.

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 #:14 - (Exam Topic 4)

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

Answer: B

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 #:15 - (Exam Topic 4)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

Answer Area

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

Reference:

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

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

You can use the Speech service to transcribe a call to text - **Yes we can use Speech to Text API to achieve this**

https://docs.microsoft.com/en-us/learn/modules/recognize-synthesize-speech/1-introduction

You can use a speech service to translate the audio of a call to a different language - **Yes we can use Speech translation service to achieve this**

The Speech service includes the following application programming interfaces (APIs):

Speech-to-text - used to transcribe speech from an audio source to text format.

Text-to-speech - used to generate spoken audio from a text source.

Speech Translation - used to translate speech in one language to text or speech in another.

https://docs.microsoft.com/en-us/learn/modules/translate-text-with-translation-service/2-get-started-azure

You can use text analytics service to extract key entities from a call transcript -**Yes Text Analytics API helps**

to achieve this

https://docs.microsoft.com/en-us/learn/modules/analyze-text-with-text-analytics-service/2-get-started-azure

Question #:16 - (Exam Topic 4)

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

NOTE: Each correct selection is worth one point.

Answer Area

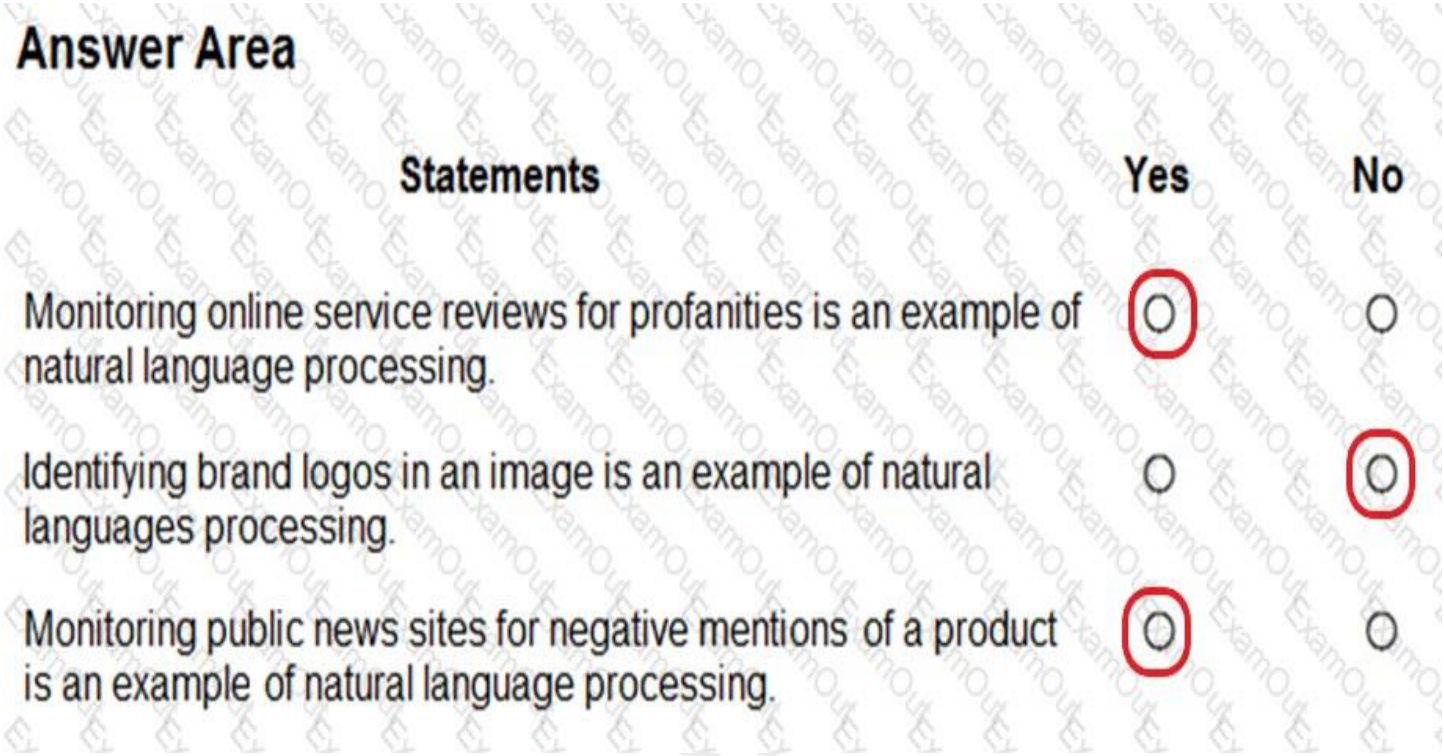
Statements	Yes	No
Monitoring online service reviews for profanities is an example of natural language processing.	○	○
Identifying brand logos in an image is an example of natural languages processing.	○	○
Monitoring public news sites for negative mentions of a product is an example of natural language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

Answer:

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.	○	○

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

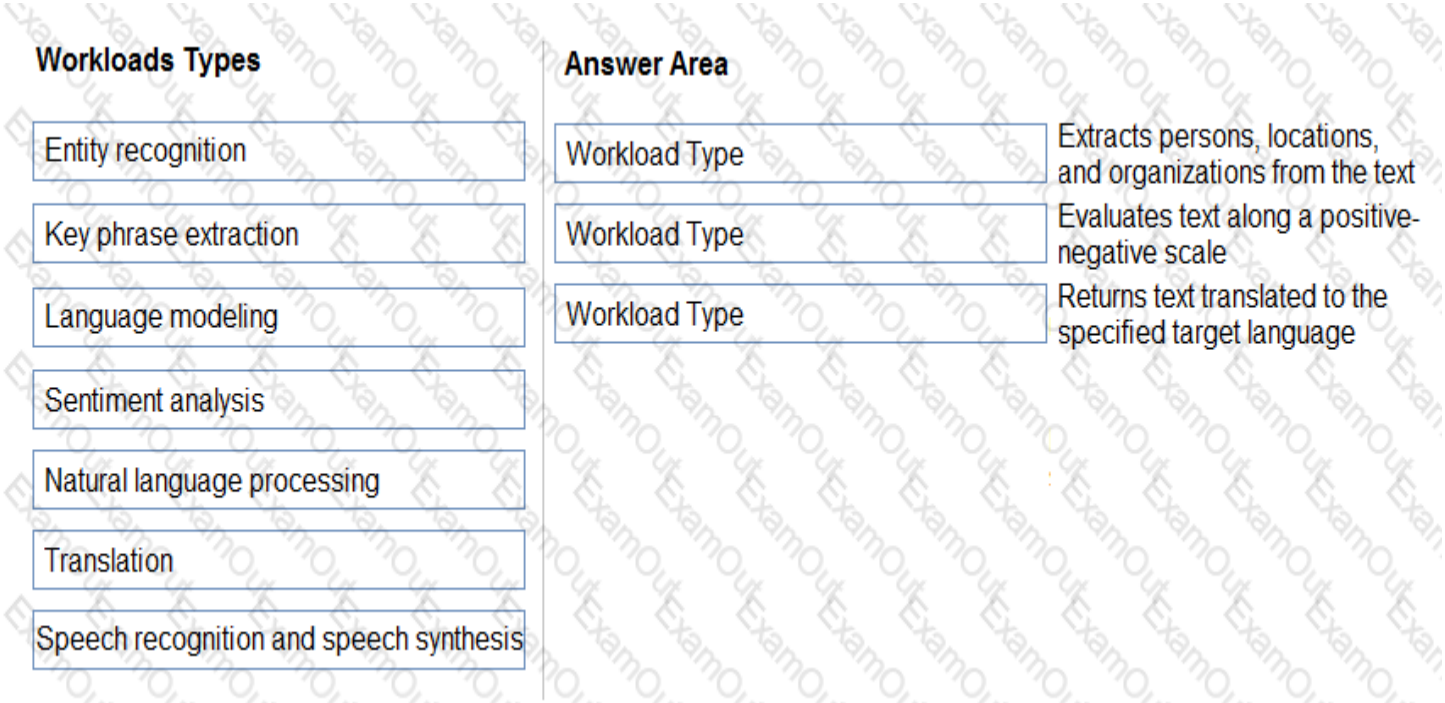
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural-language-processing

Question #:17 - (Exam Topic 4)

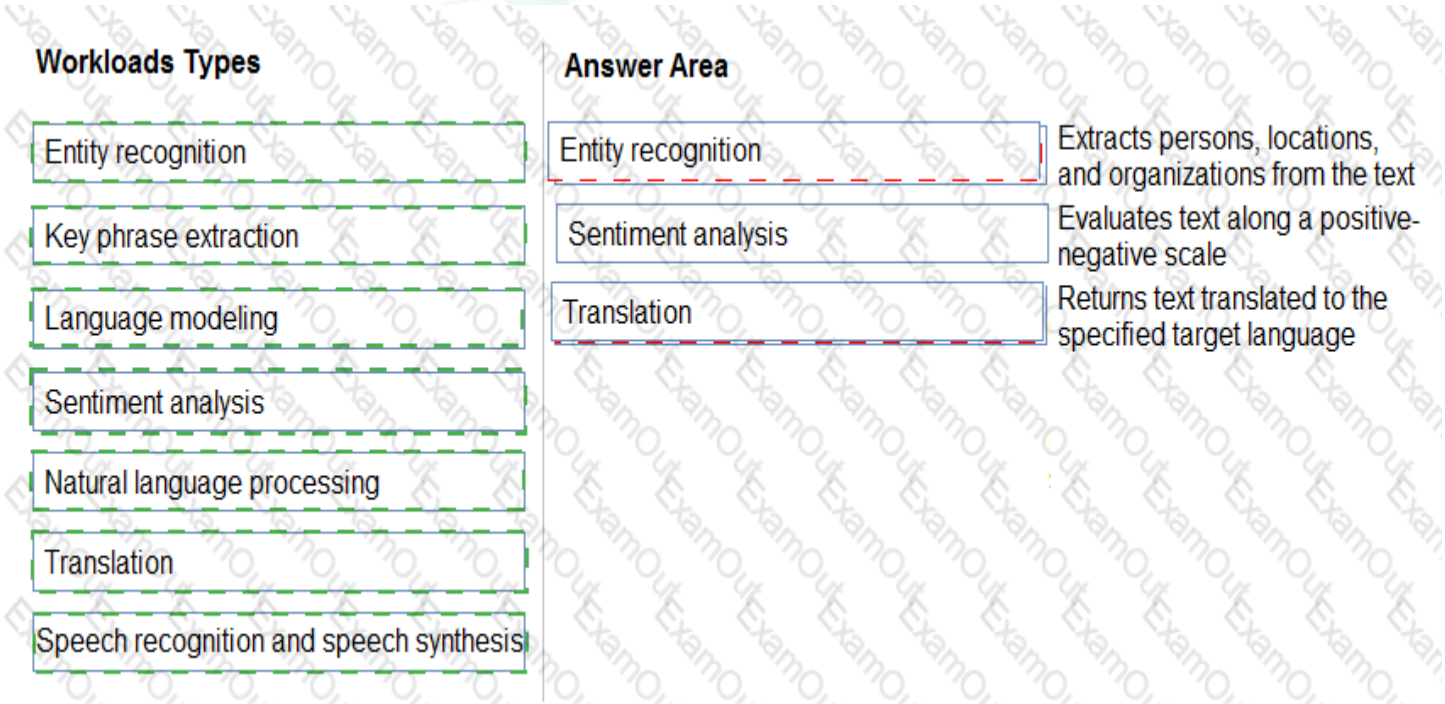
Match the types of natural languages processing workloads to the appropriate scenarios.

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.



Answer:



Explanation

Box 1: Entity recognition

Classify a broad range of entities in text, such as people, places, organisations, date/time and percentages, using named entity recognition. Whereas:- Get a list of relevant phrases that best describe the subject of each record using key phrase extraction.

Box 2: Sentiment analysis

Sentiment Analysis is the process of determining whether a piece of writing is positive, negative or neutral.

Box 3: Translation

Using Microsoft's Translator text API

This versatile API from Microsoft can be used for the following:

Translate text from one language to another.

Transliterate text from one script to another.

Detecting language of the input text.

Find alternate translations to specific text.

Determine the sentence length.

Reference:

https://azure.microsoft.com/en-us/services/cognitive-services/text-analytics

Question #:18 - (Exam Topic 4)

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

NOTE: Each correct selection is worth one point.

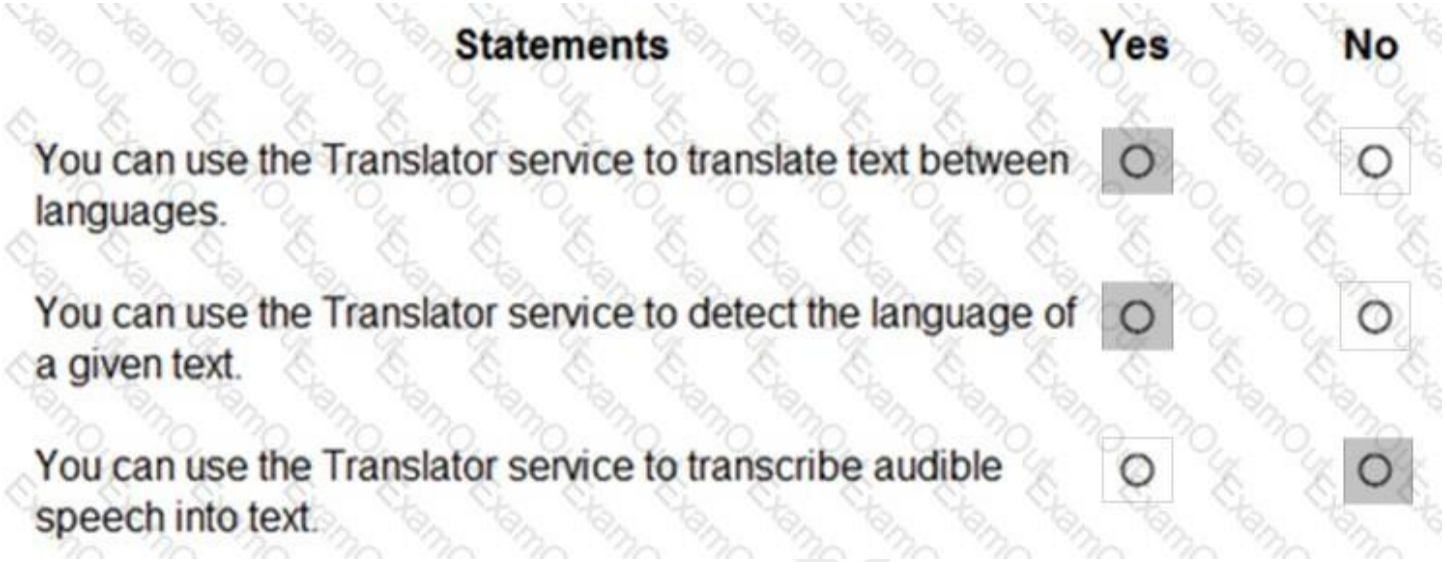
Statements	Yes	No
You can use the Translator service to translate text between languages.	○	○
You can use the Translator service to detect the language of a given text.	○	○
You can use the Translator service to transcribe audible speech into text.	○	○

Answer:

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.	○	○

Explanation

Graphical user interface, text, application, email Description automatically generated



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.	○	○

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 #:19 - (Exam Topic 4)

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 Al workload should you use?

A. conversational Al

B. anomaly detection

C. natural language processing

D. computer vision

Answer: C

Explanation

Key phrase extraction is the concept of evaluating the text of a document, or documents, and then identifying

the main talking points of the document(s).

Key phase extraction is a part of Text Analytics. The Text Analytics service is a part of the Azure Cognitive Services offerings that can perform **advanced natural language processing** over raw text.

https://docs.microsoft.com/en-us/learn/modules/analyze-text-with-text-analytics-service/2-get-started-azure

Question #:20 - (Exam Topic 4)

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

Answer: B

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 #:21 - (Exam Topic 4)

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

Answer: B

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 #:22 - (Exam Topic 4)

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)

Answer: D

Explanation

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

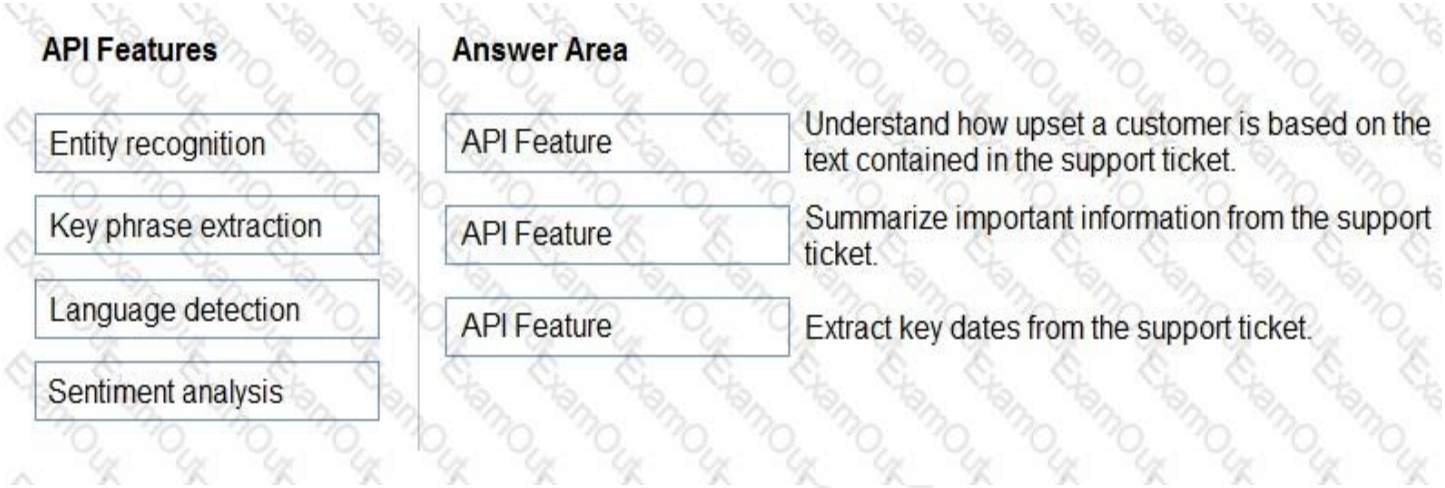
Question #:23 - (Exam Topic 4)

You plan to apply Text Analytics API features to a technical support ticketing system.

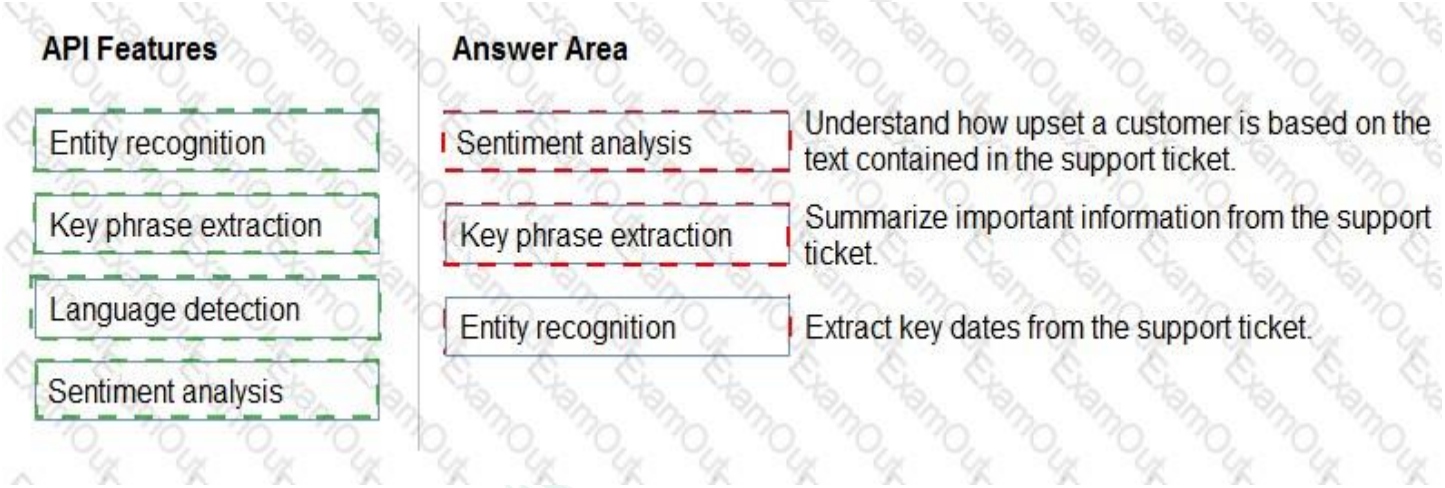
Match the Text Analytics API features to the appropriate natural language processing scenarios.

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.

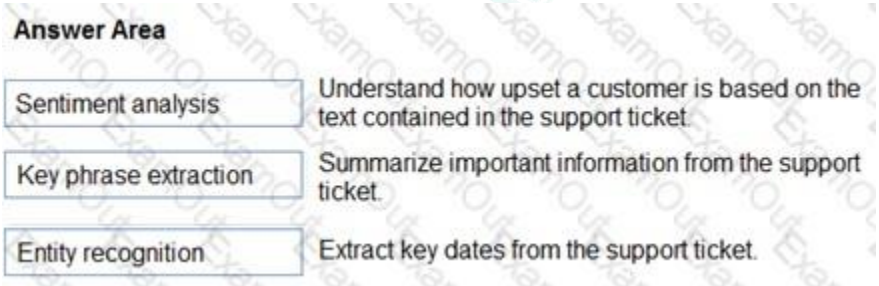
NOTE: Each correct selection is worth one point.



Answer:



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 #:24 - (Exam Topic 4)

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. Language Service

B. Azure Bot Service

C. Form Recognizer

D. Anomaly Detector

Answer: A D

Reference:

https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4

https://docs.microsoft.com/en-us/azure/cognitive-services/luis/choose-natural-language-processing-service

Question #:25 - (Exam Topic 4)

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)

Answer: C

Reference:

https://azure.microsoft.com/en-us/services/cognitive-services/text-to-speech/#features

Question #:26 - (Exam Topic 4)

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

Answer: D

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.

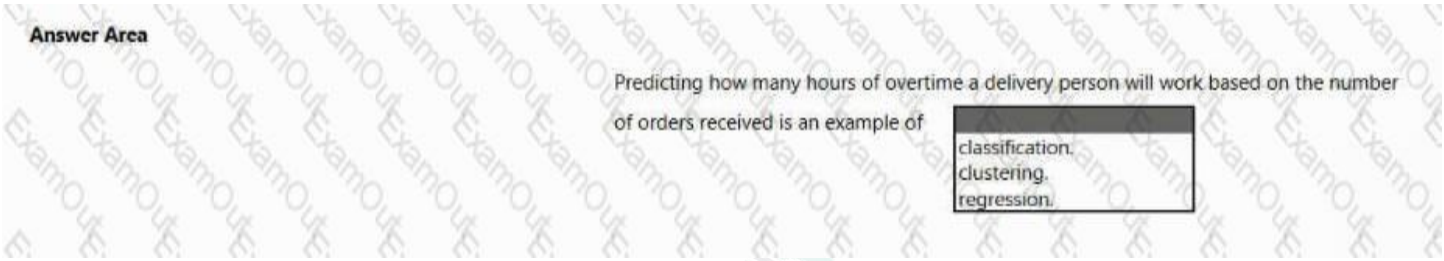
Reference:

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

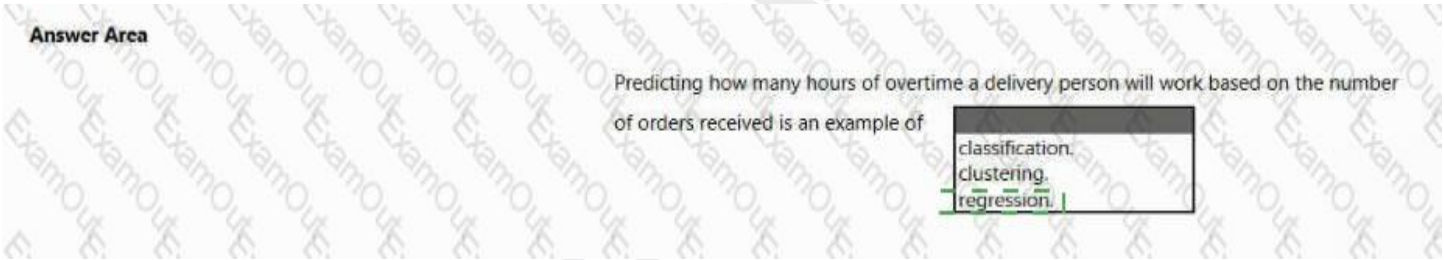
Topic 5, Describe features of conversational AI workloads on Azure

Question #:1 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



Answer:



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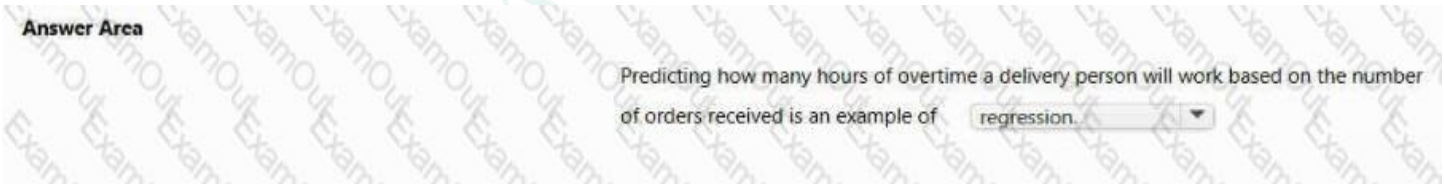


Question #:2 - (Exam Topic 5)

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.

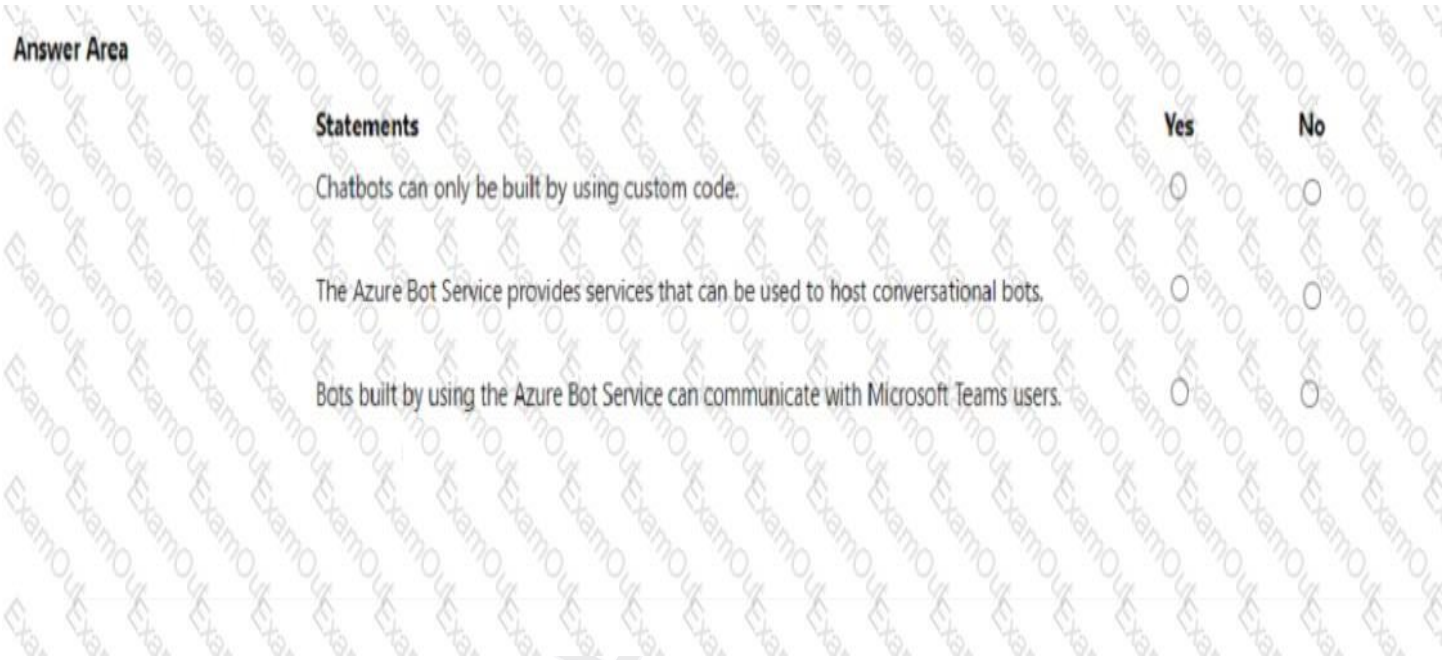
D. Use the original dataset for training and evaluation.

Answer: C

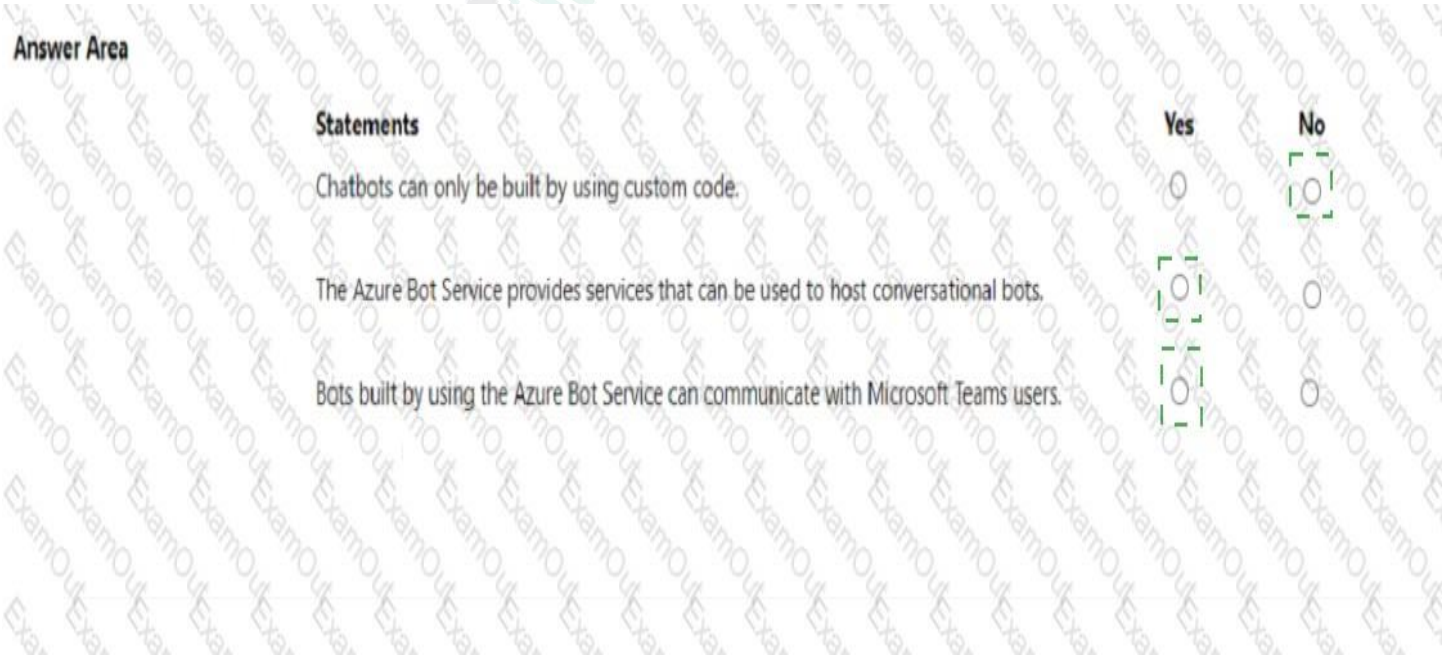
Question #:3 - (Exam Topic 5)

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

NOTE; Each correct selection is worth one point.



Answer:



Explanation

Answer Area

Question #:4 - (Exam Topic 5)

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

NOTE; Each correct selection is worth one point.

Answer Area

Answer:

Explanation

Question #:5 - (Exam Topic 5)

You have an Al solution that provides users with the ability to control smart devices by using verbal commands.

Which two types of natural language processing (NLP) workloads does the solution use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. text-to-speech

B. translation

C. language modeling

D. key phrase extraction

E. speech-to-text

Answer: D E

Question #:6 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

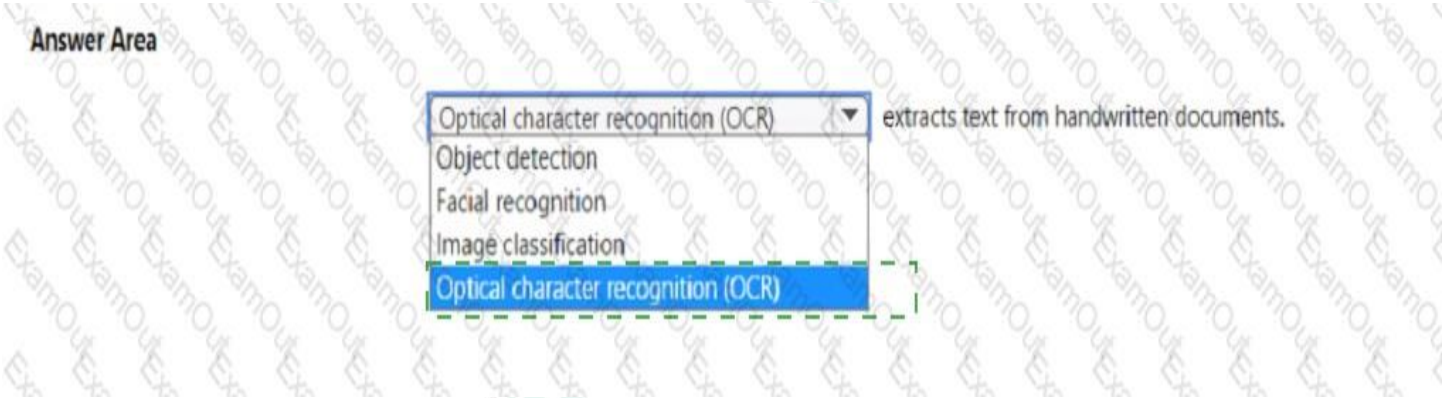
Answer:

Explanation

Question #:7 - (Exam Topic 5)

Select the answer that correctly completes the sentence.

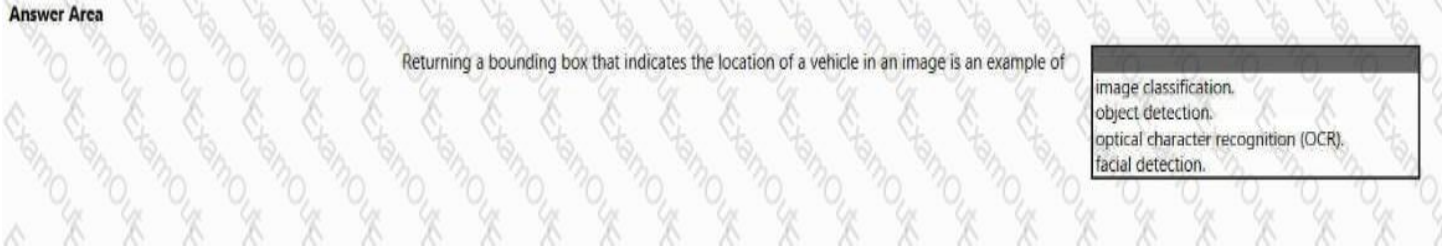
Answer:



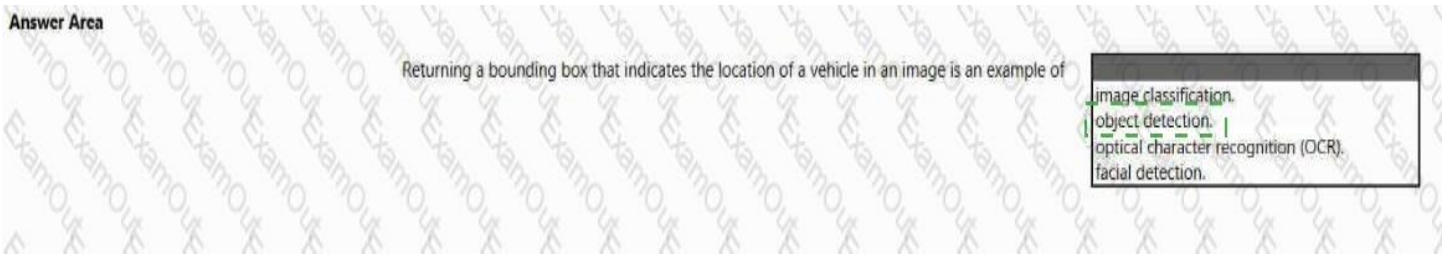
Explanation

Question #:8 - (Exam Topic 5)

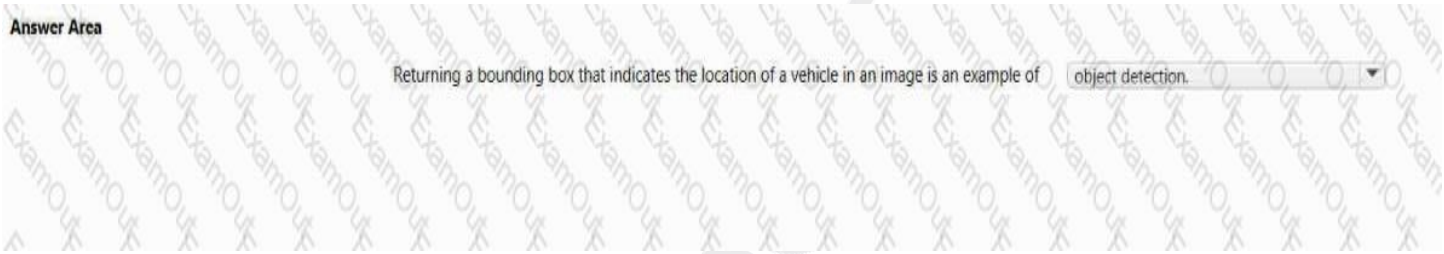
To complete the sentence, select the appropriate option in the answer area.



Answer:



Explanation



Question #:9 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

Answer:

Explanation

C:\Users\wk\Desktop\mudassar\Untitled.png

Question #:10 - (Exam Topic 5)

Which two tools can you use to call the Azure OpenAI service? Each correct answer presents a complete solution.

NOTE: Each correct answer is worth one point.

A. Azure Command-Line Interface (CLI)

B. Azure REST API

C. Azure SDK for Python

D. Azure SDK for JavaScript

Answer: A B

Question #:11 - (Exam Topic 5)

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.

Answer: D

Question #:12 - (Exam Topic 5)

You have a dataset that contains experimental data for fuel samples.

You need to predict the amount of energy that can be obtained from a sample based on its density.

Which type of Al workload should you use?

A. Classification

B. Clustering

C. Knowledge mining

D. Regression

Answer: D

Question #:13 - (Exam Topic 5)

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

A. Al systems must use only publicly available data.

B. Al systems must protect the interests of the company

C. Al systems must be understandable.

D. Al systems must keep personal details public

Answer: C

Question #:14 - (Exam Topic 5)

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

A. QnA Maker

B. Language Understanding (LUIS)

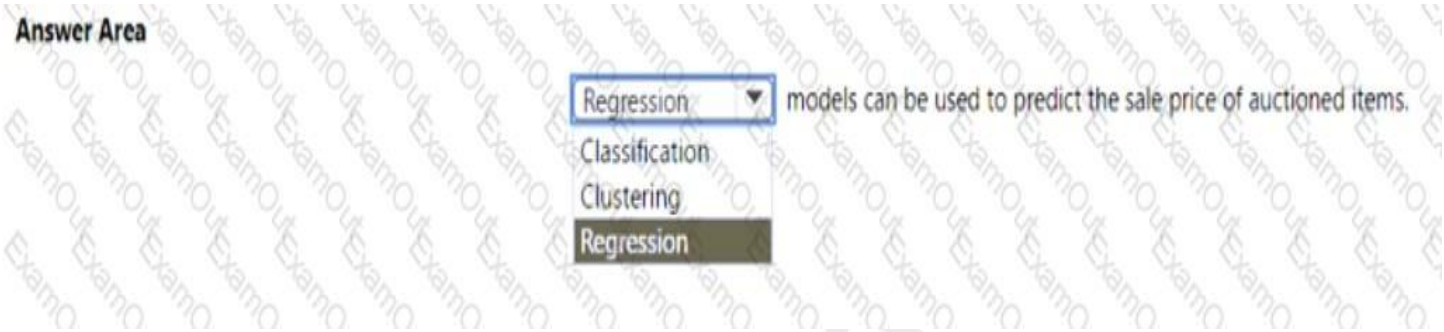
C. Text Analytics

D. Speech

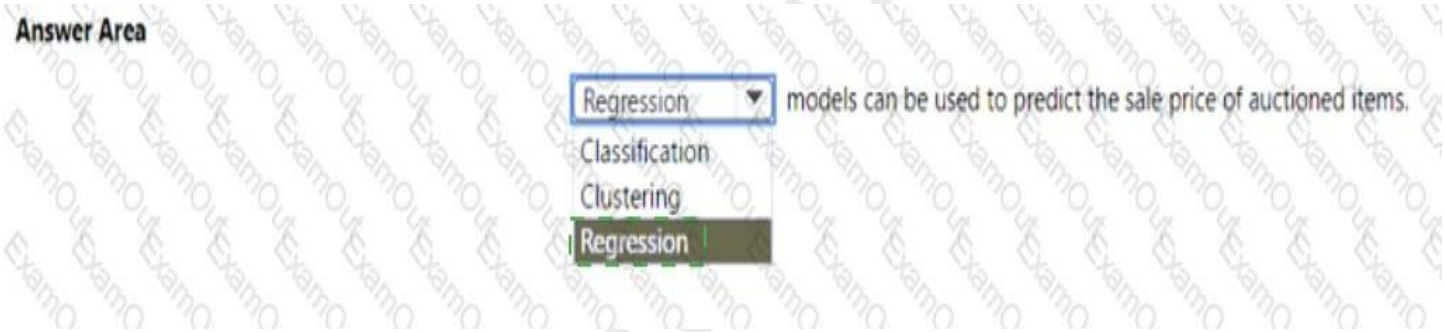
Answer: A

Question #:15 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



Answer:



Explanation

Question #:16 - (Exam Topic 5)

You need to create a model that labels a collection of your personal digital photographs.

Which Azure Al service should you use?

A. Azure Al Language

B. Azure Al Computer Vision

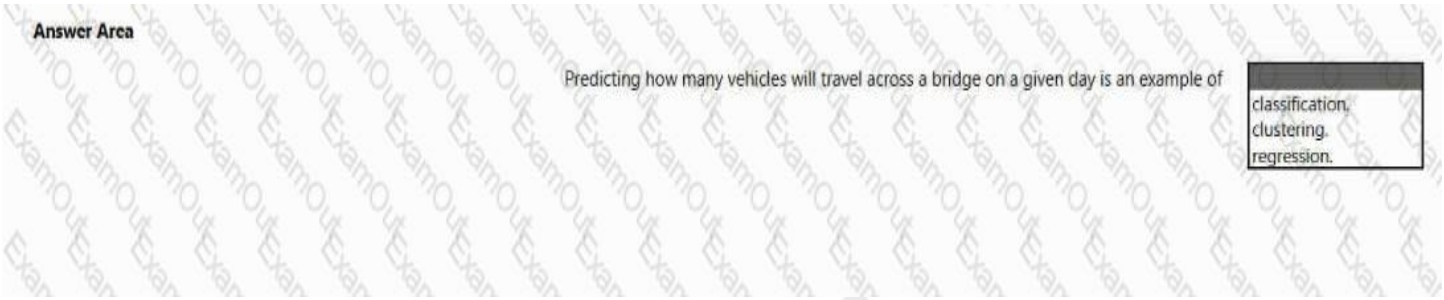
C. Azure Al Document Intelligence

D. Azure Al Custom Vision

Answer: B

Question #:17 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



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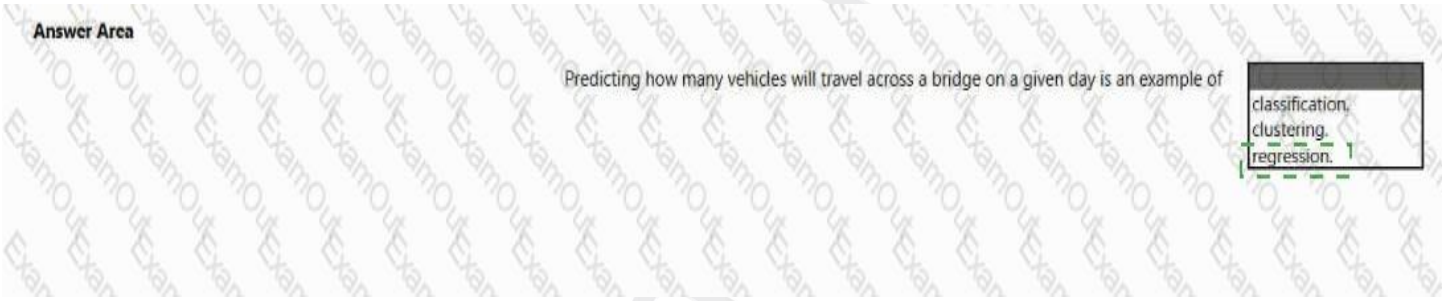
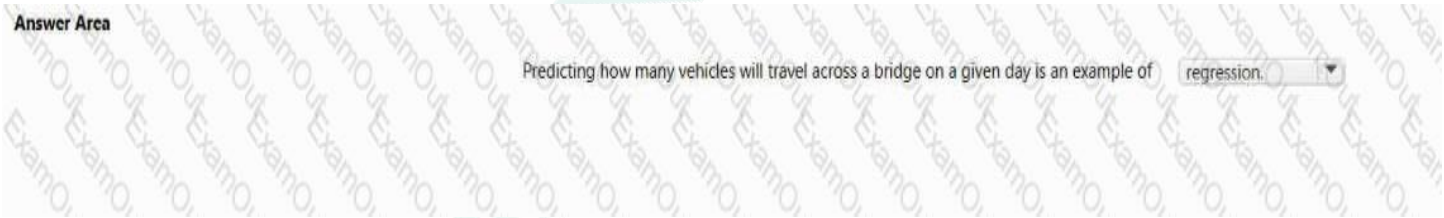


Explanation

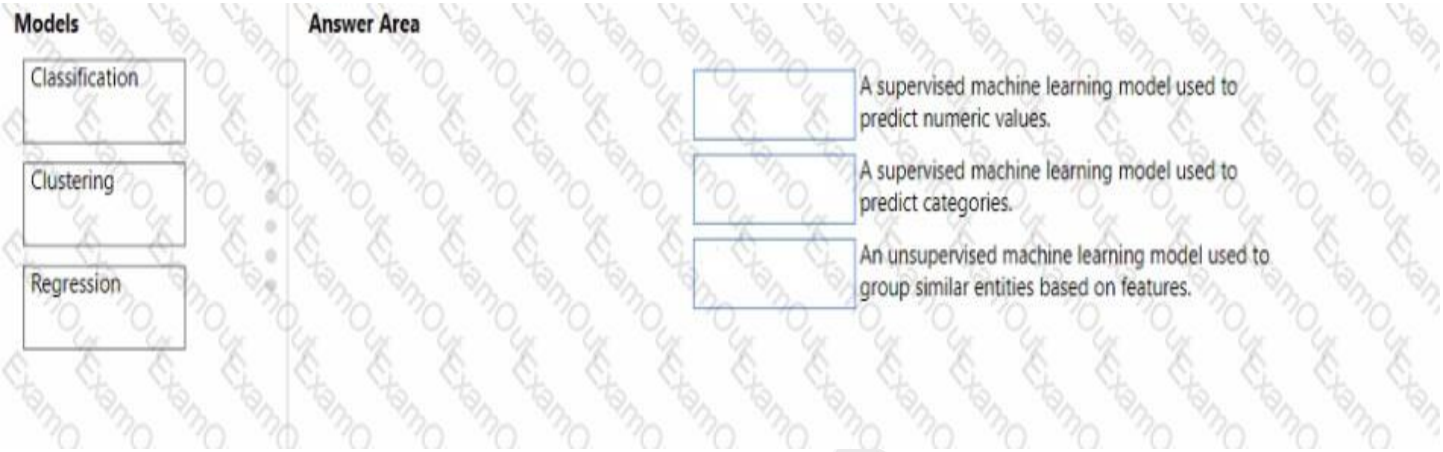


Question #:18 - (Exam Topic 5)

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.



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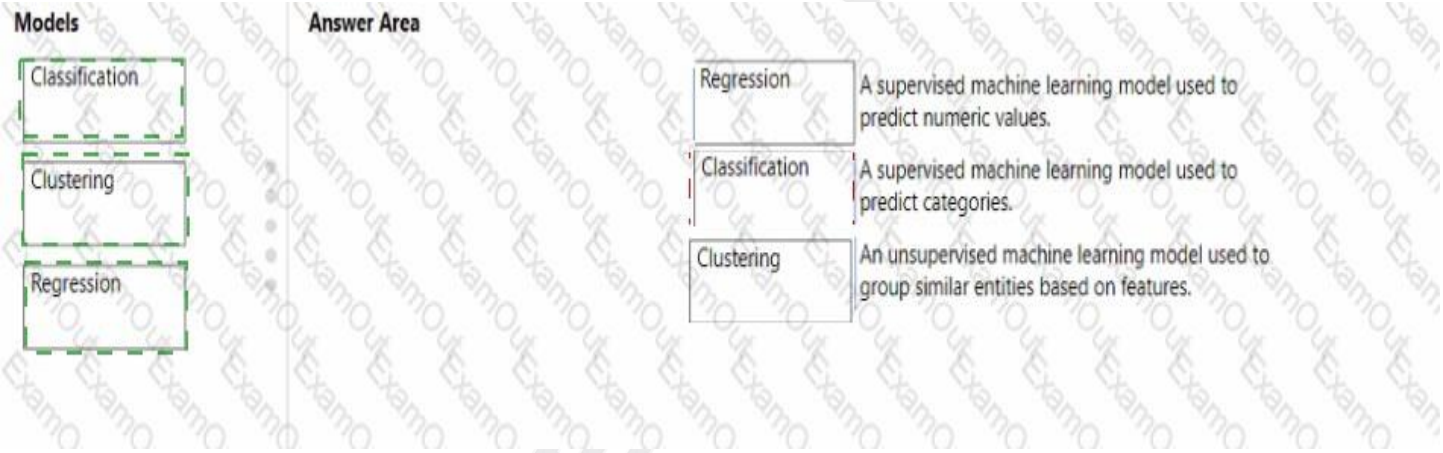
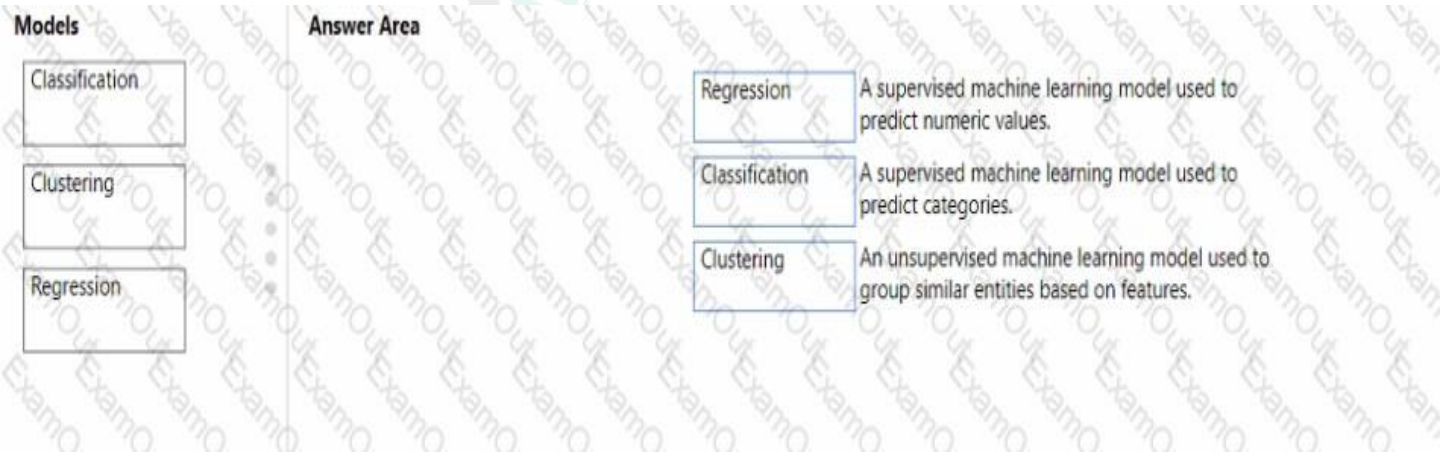


Explanation

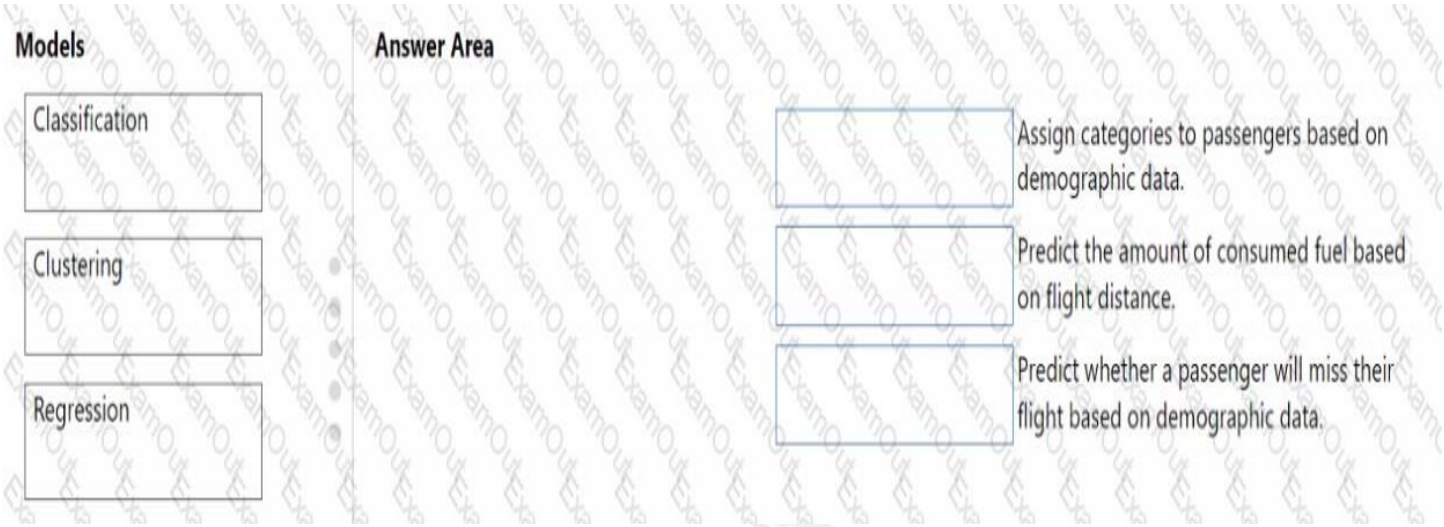


Question #:19 - (Exam Topic 5)

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.

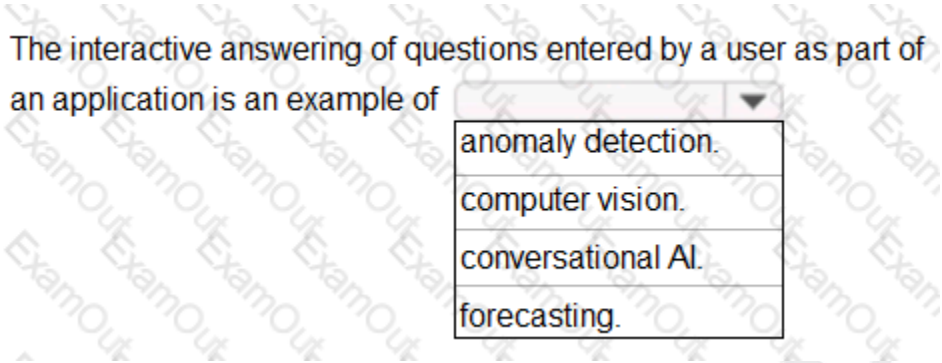


Answer:

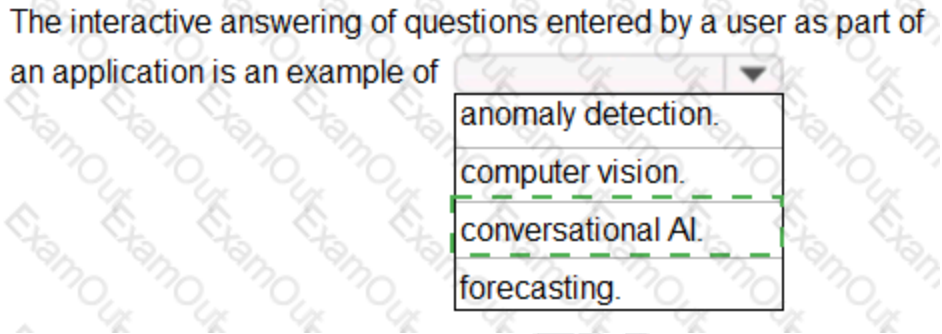
Explanation

Question #:20 - (Exam Topic 5)

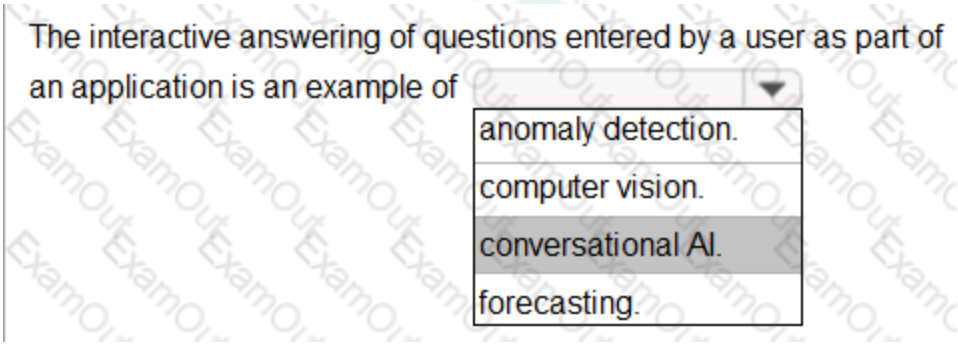
To complete the sentence, select the appropriate option in the answer area.



Answer:



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.

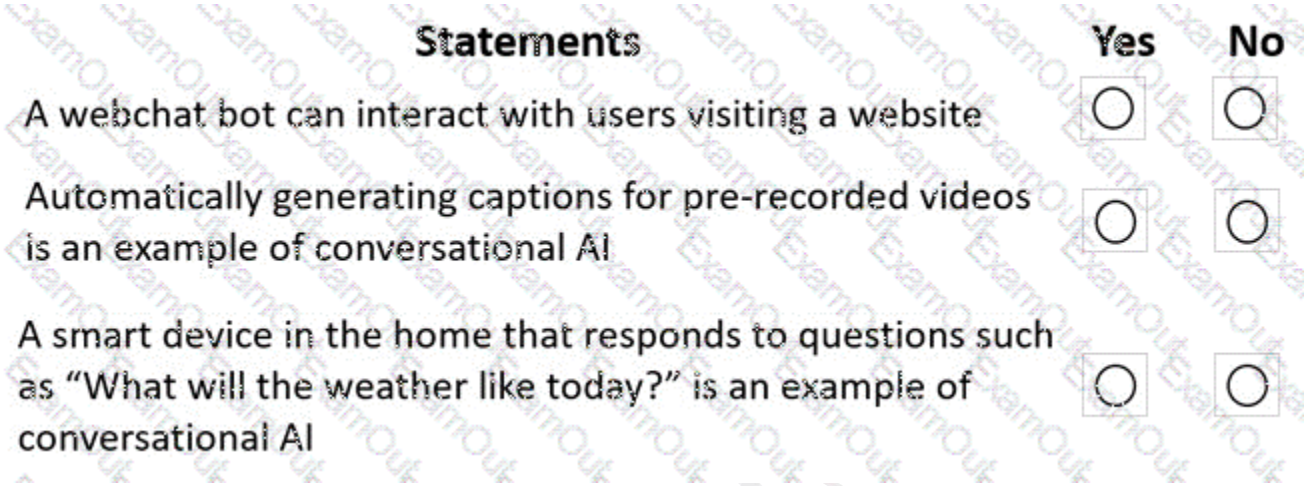
Reference:

https://azure.microsoft.com/en-in/blog/microsoft-conversational-ai-tools-enable-developers-to-build-connect-an

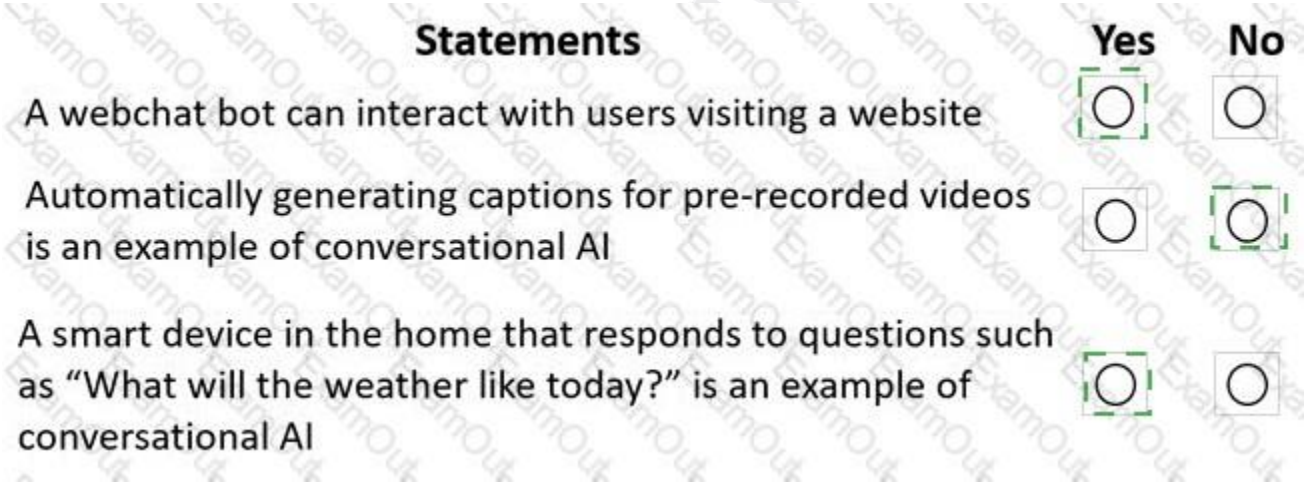
Question #:21 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

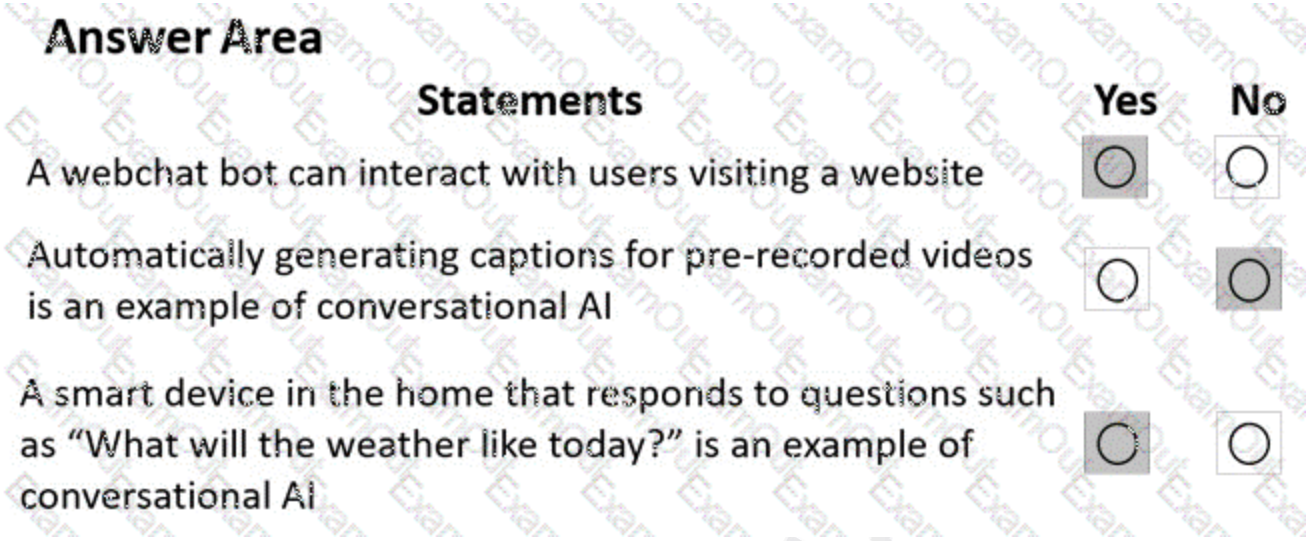


Answer:



Explanation

Graphical user interface, text, application Description automatically generated



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 #:22 - (Exam Topic 5)

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 integrate with the web app to meet the goal?

A. Azure AI Language Service

B. Face

C. Azure AI Translator

D. Azure AI Custom Vision

Answer: D

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 semistructured content, including FAQs, manuals, and documents. Answer users' questions with the best answers from the QnAs in your knowledge base—automatically. Your knowledge base gets smarter, too, as it

continually learns from user behavior.

Reference:

https://azure.microsoft.com/en-us/services/cognitive-services/qna-maker/

Question #:23 - (Exam Topic 5)

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

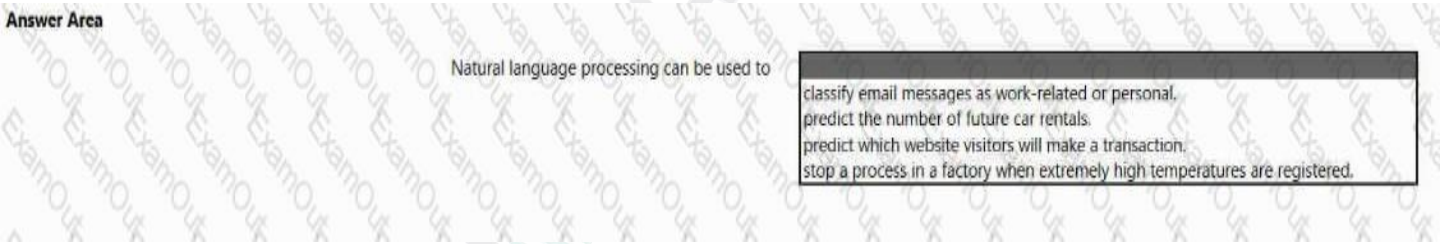
C. diverting records that have missing data

D. scaling numeric variables so that they are within a consistent numeric range

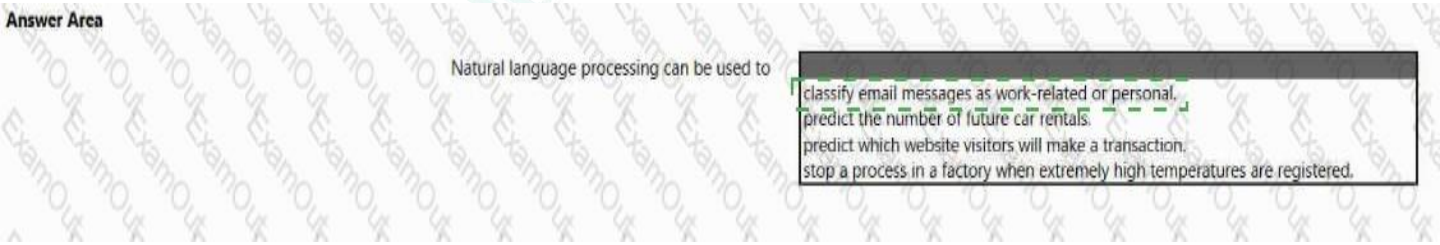
Answer: A

Question #:24 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



Answer:



Explanation

Question #:25 - (Exam Topic 5)

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

Answer: A

Question #:26 - (Exam Topic 5)

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

Answer:

Explanation

Question #:27 - (Exam Topic 5)

You have an Al-based loan approval system.

During testing, you discover that the system has a gender bias.

Which responsible Al principle does this violate?

A. accountability

B. transparency

C. fairness

D. reliability and safety

Answer: C

Question #:28 - (Exam Topic 5)

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

Answer: B C

Question #:29 - (Exam Topic 5)

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.

Answer:

Explanation

Question #:30 - (Exam Topic 5)

You have a custom question answering solution.

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 complaints.

B. Answer questions from multiple users simultaneously.

C. Register customer purchases.

D. Provide customers with return materials authorization (RMA) numbers.

Answer: B

Question #:31 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

Answer:

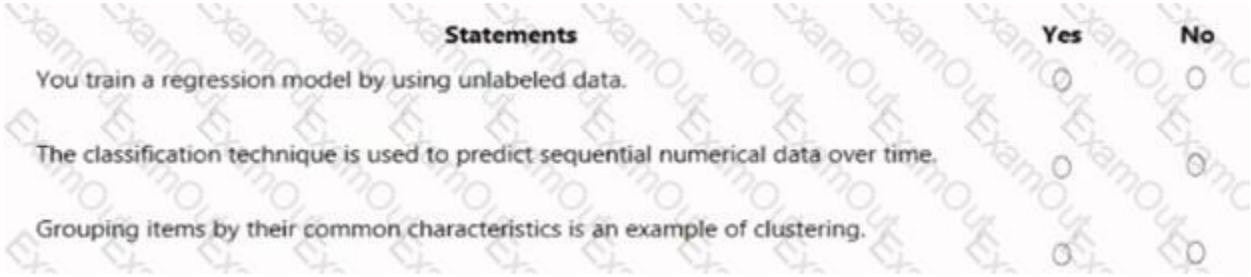
Explanation

Text Description automatically generated

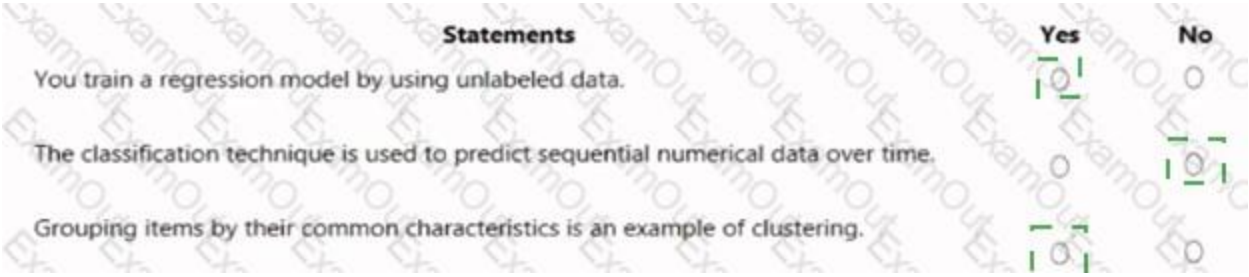
Question #:32 - (Exam Topic 5)

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

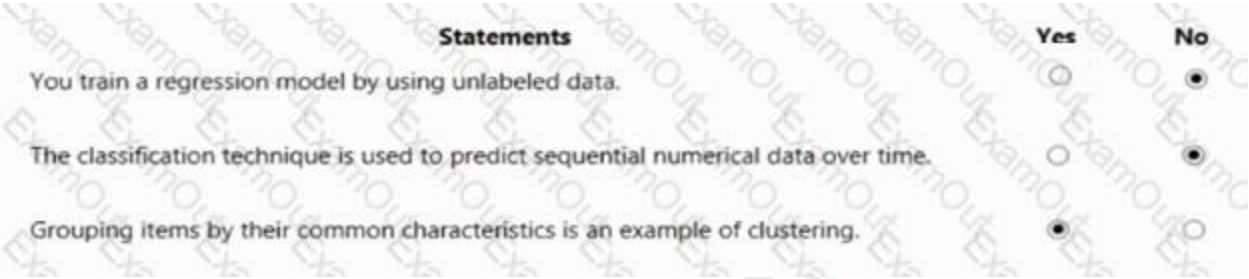
NOTE: Each correct selection is worth one point.



Answer:



Explanation



Question #:33 - (Exam Topic 5)

You need to generate images based on user prompts. Which Azure OpenAI model should you use?

A. GPT-4

B. DALL-E

C. GPT-3

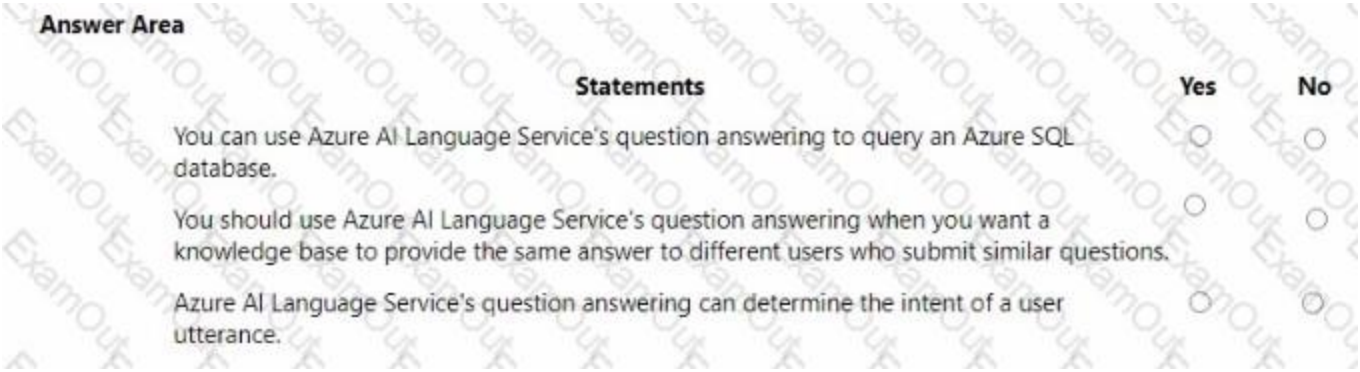
D. Whisper

Answer: B

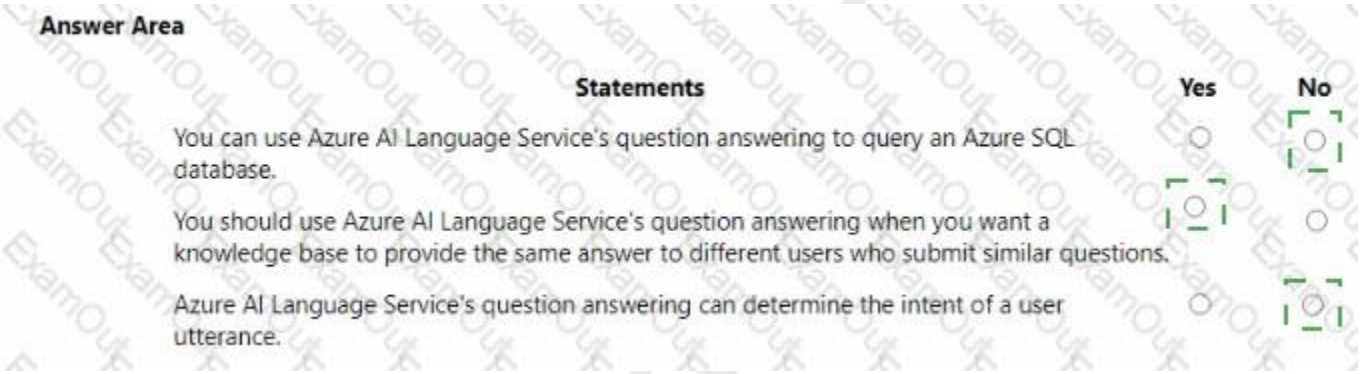
Question #:34 - (Exam Topic 5)

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

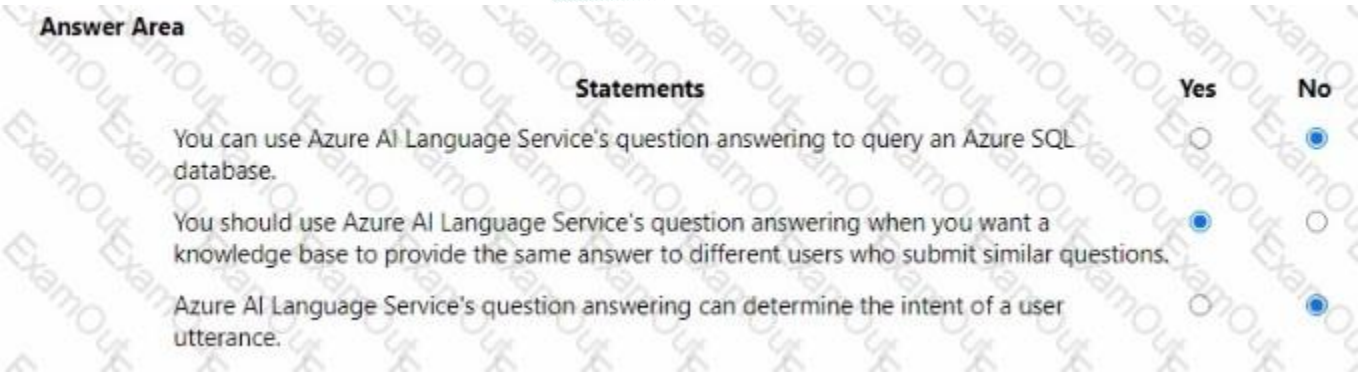
NOTE: Each correct selection is worth one point.



Answer:



Explanation



Question #:35 - (Exam Topic 5)

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

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:

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.	○	○

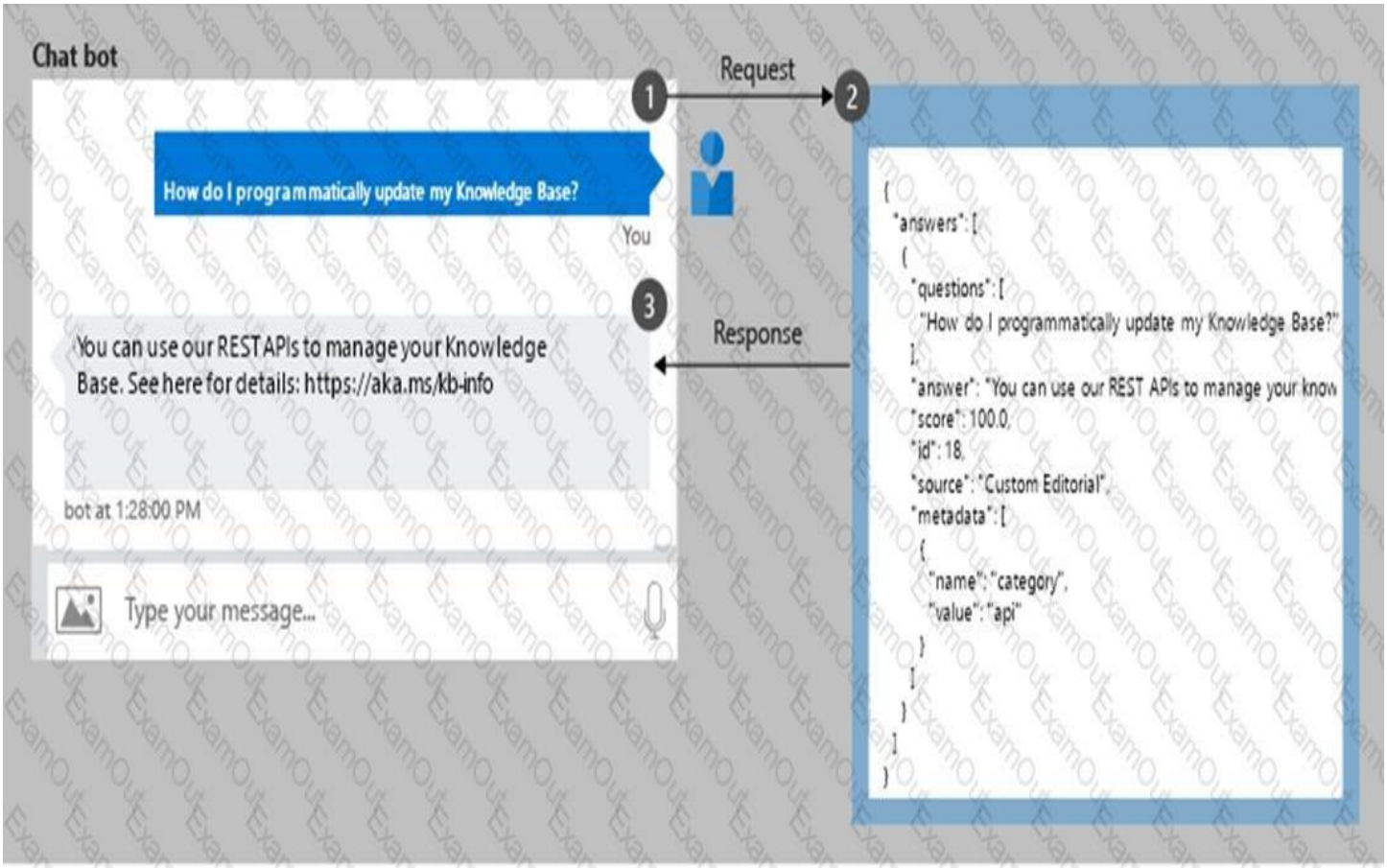
Explanation

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.	●	○

Question #:36 - (Exam Topic 5)

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

Answer: B

Question #:37 - (Exam Topic 5)

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 Al service should you use?

A. Face

B. Azure Al Language

C. Azure Al Document Intelligence

D. Azure Al Custom Vision

Answer: C

Question #:38 - (Exam Topic 5)

What is an advantage of using a custom model in Form Recognizer?

A. Only a custom model can be deployed on-premises.

B. A custom model can be trained to recognize a variety of form types.

C. A custom model is less expensive than a prebuilt model.

D. A custom model always provides higher accuracy.

Answer: B

Question #:39 - (Exam Topic 5)

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?

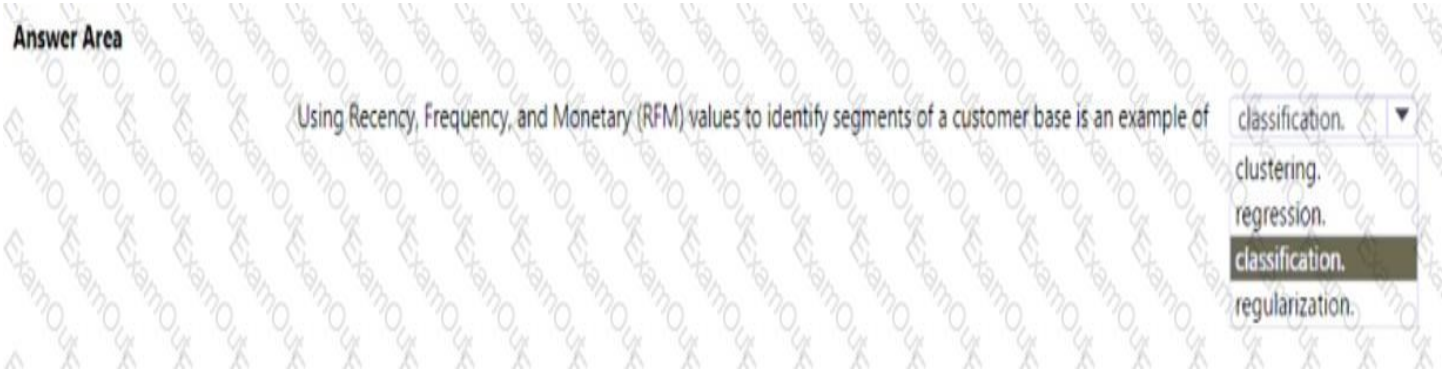
C. monitoring the temperature of machinery to turn on a fan when the temperature reaches a specific threshold

D. a website that uses a knowledge base to interactively respond to users' questions

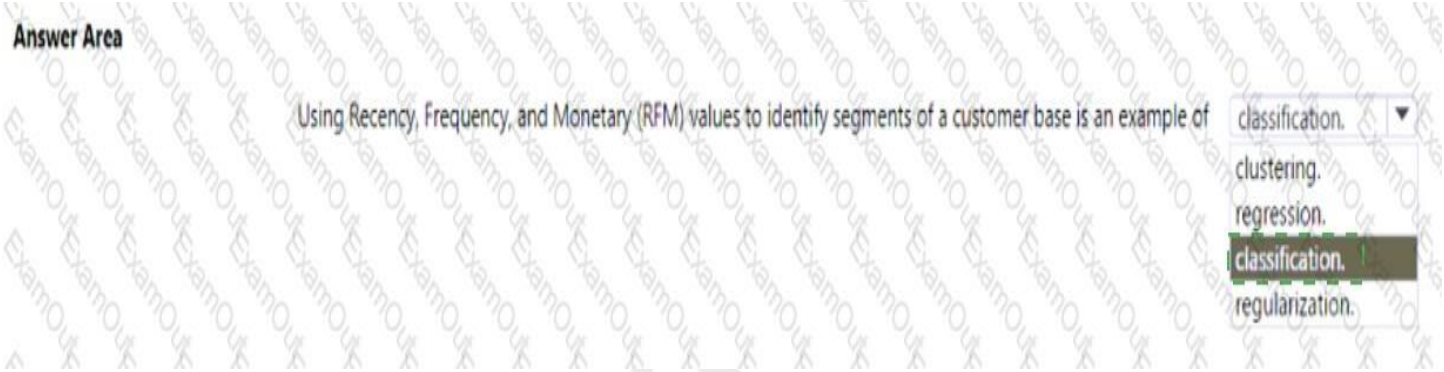
Answer: B D

Question #:40 - (Exam Topic 5)

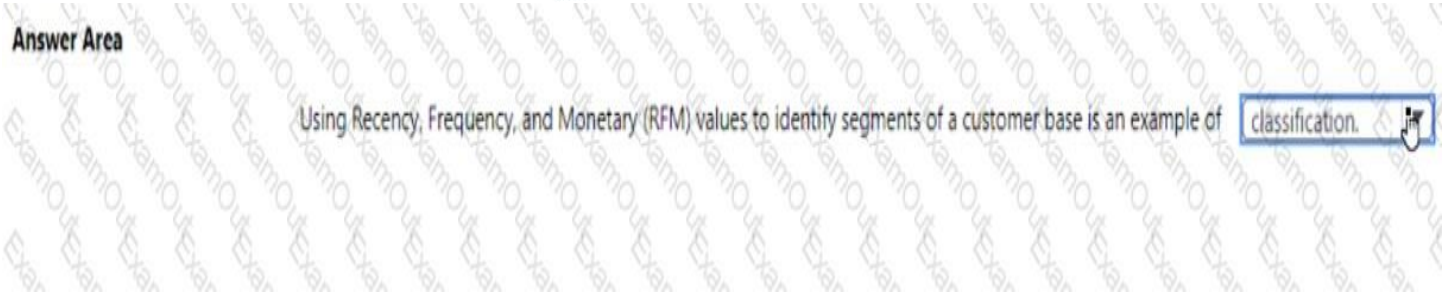
Select the answer that correctly completes the sentence.



Answer:



Explanation



Question #:41 - (Exam Topic 5)

Select the answer that correctly completes the sentence.

Answer:

Explanation

Question #:42 - (Exam Topic 5)

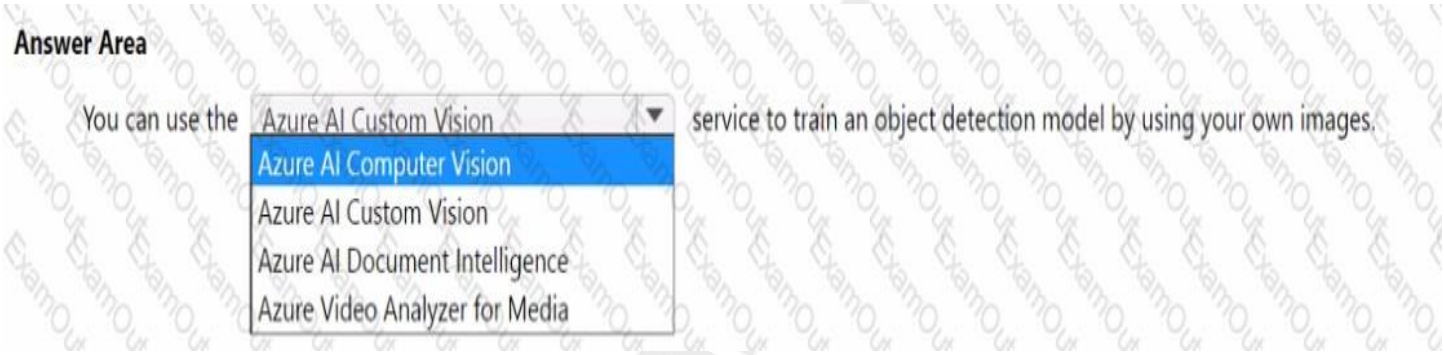
Select the answer that correctly completes the sentence.

Answer:

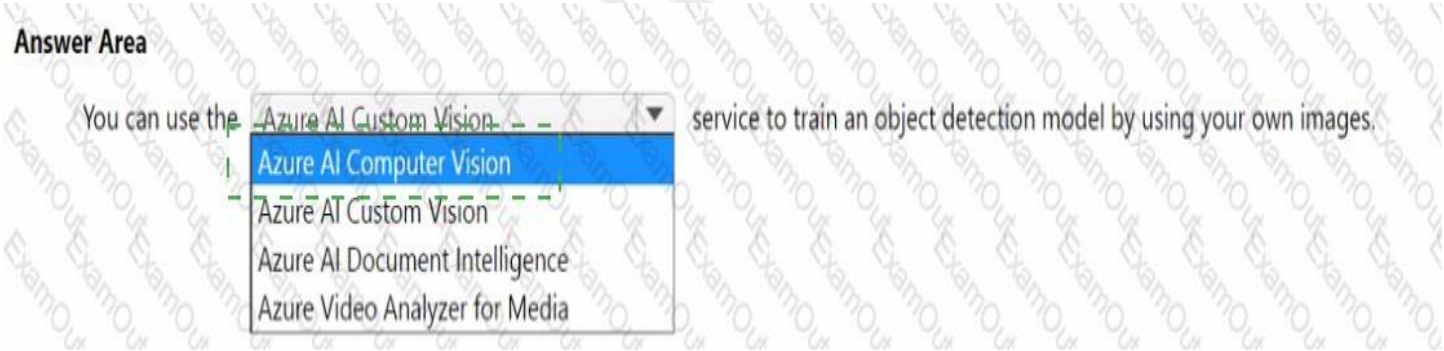
Explanation

Question #:43 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



Answer:



Explanation

Question #:44 - (Exam Topic 5)

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

Answer: C

Question #:45 - (Exam Topic 5)

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 Al Vision

Answer: D

Question #:46 - (Exam Topic 5)

NO: 85 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.

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:

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.	○	○

Explanation

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.	○	○

Reference:

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

All 3 are correct as they are the different channels to connect with a bot

Office 365 email - Enable a bot to communicate with users via Office 365 email.

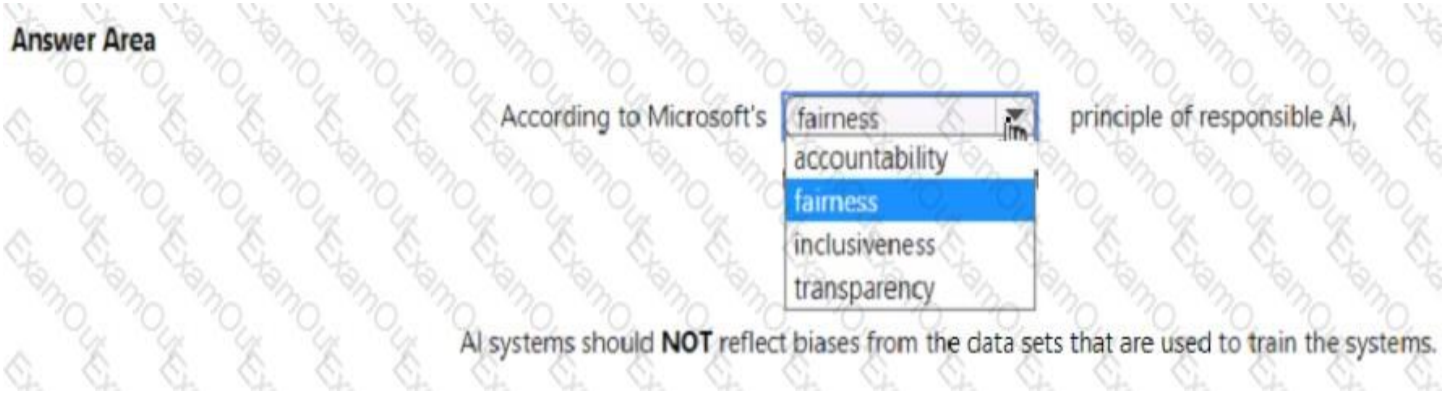
Microsoft Teams - Configure a bot to communicate with users through Microsoft Teams.

Web Chat - Automatically configured for you when you create a bot with the Bot Framework Service.

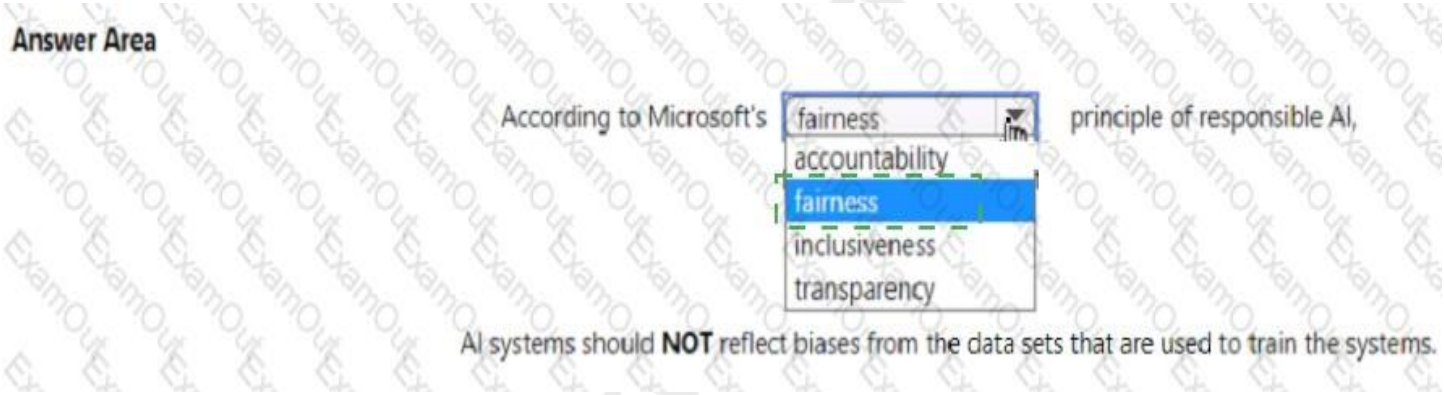
https://docs.microsoft.com/en-us/azure/bot-service/bot-service-manage-channels?view=azure-bot-service-4.0

Question #:47 - (Exam Topic 5)

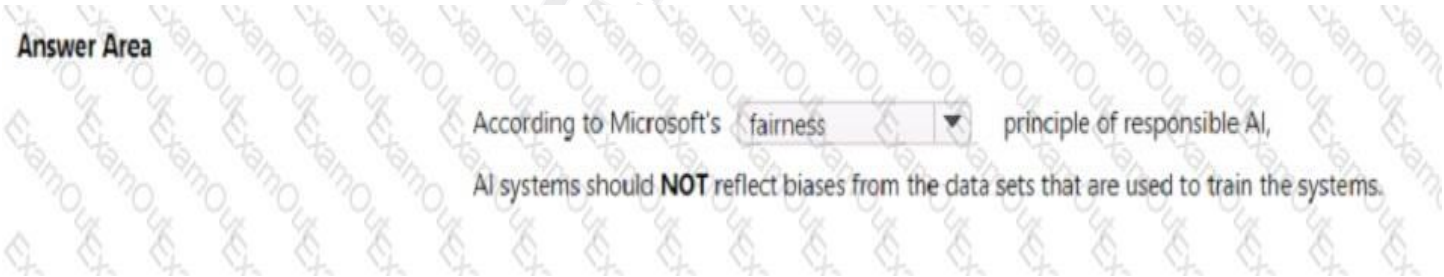
Select the answer that correctly completes the sentence.



Answer:



Explanation

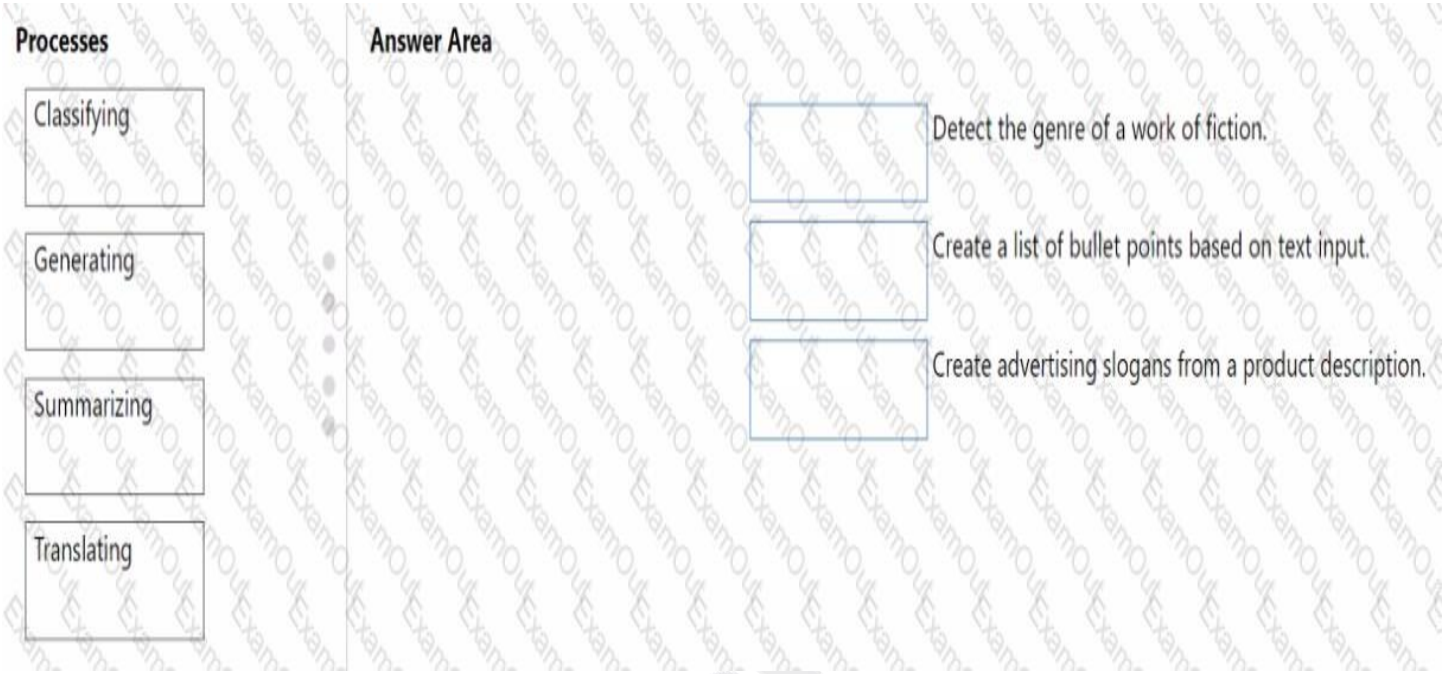


Question #:48 - (Exam Topic 5)

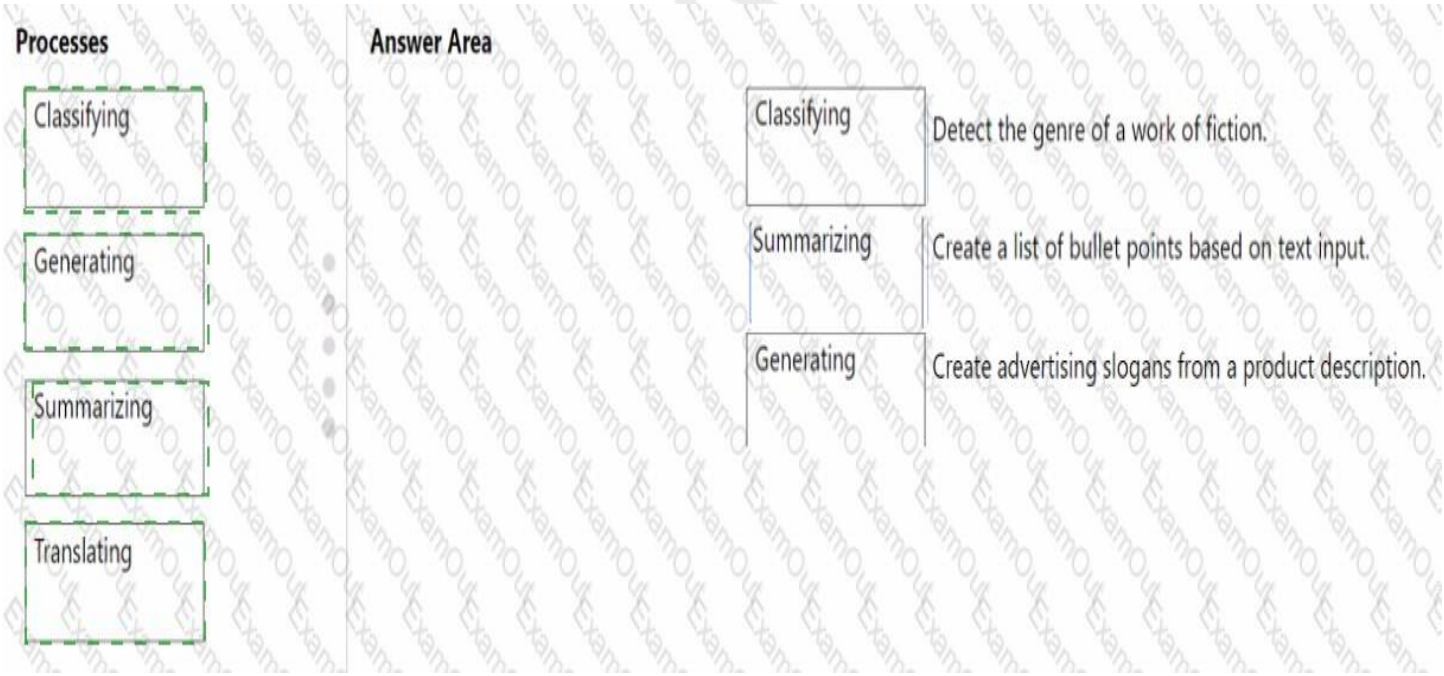
Match the Azure OpenAI large language model (LLM) process to the appropriate task.

To answer, drag the appropriate process from the column on the left to its task on the right. Each process may be used once, more than once, or not at all.

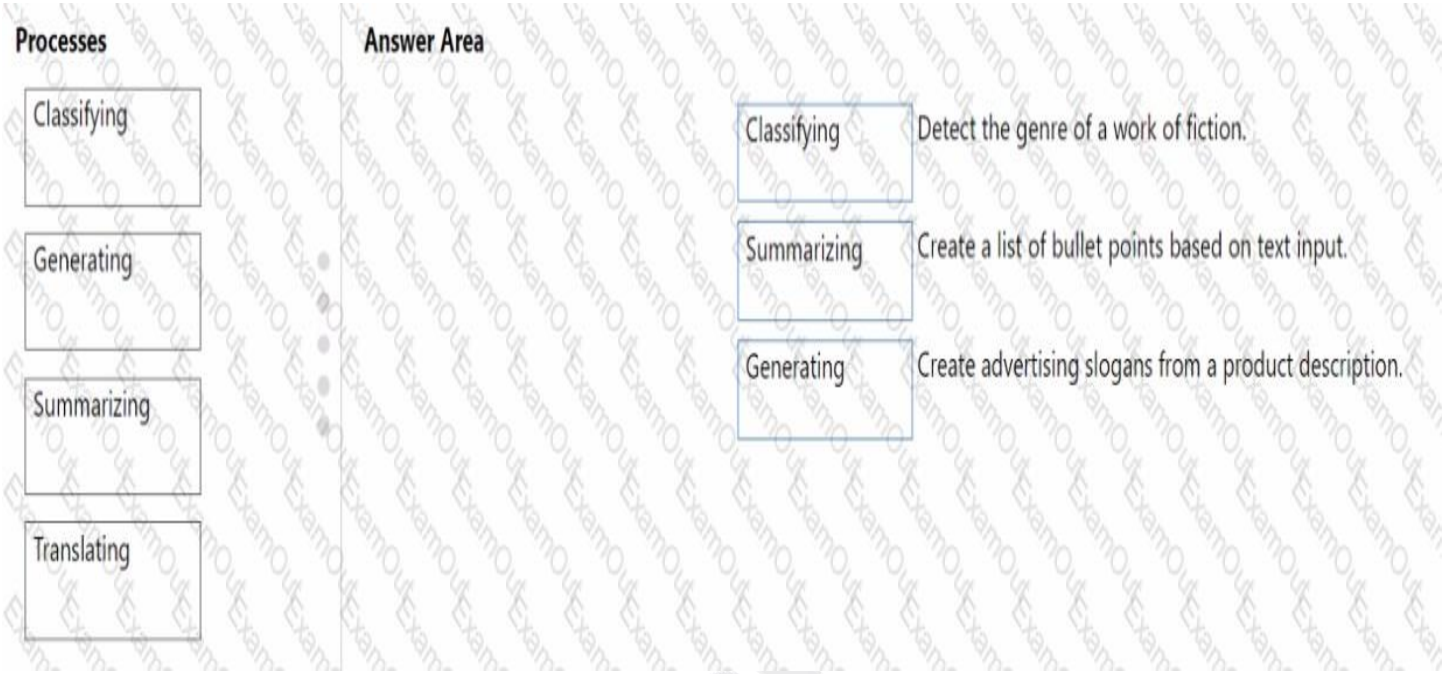
NOTE: Each correct match is worth one point.



Answer:



Explanation



Question #:49 - (Exam Topic 5)

Which parameter should you configure to produce more verbose responses from a chat solution that uses the Azure OpenAI GPT-3.5 model?

A. Presence penalty

B. Temperature

C. Stop sequence

D. Max response

Answer: D

Question #:50 - (Exam Topic 5)

Extracting relationships between data from large volumes of unstructured data is an example of which type of Al workload?

A. computer vision

B. knowledge mining

C. natural language processing (NLP)

D. anomaly detection

Answer: B

Question #:51 - (Exam Topic 5)

What can be used to complete a paragraph based on a sentence provided by a user?

A. Azure Al Language

B. Azure OpenAI

C. Azure Machine Learning

D. Azure Al Vision

Answer: B

Question #:52 - (Exam Topic 5)

You plan to use Azure Machine Learning Studio and automated machine learning (automated ML) to build and train a model What should you create first?

A. a Jupyter notebook

B. a Machine Learning workspace

C. a registered dataset

D. a Machine Learning designer pipeline

Answer: B

Question #:53 - (Exam Topic 5)

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

Computer vision capabilities can be Deployed to……..

see the answer in below Explanation

Explanation

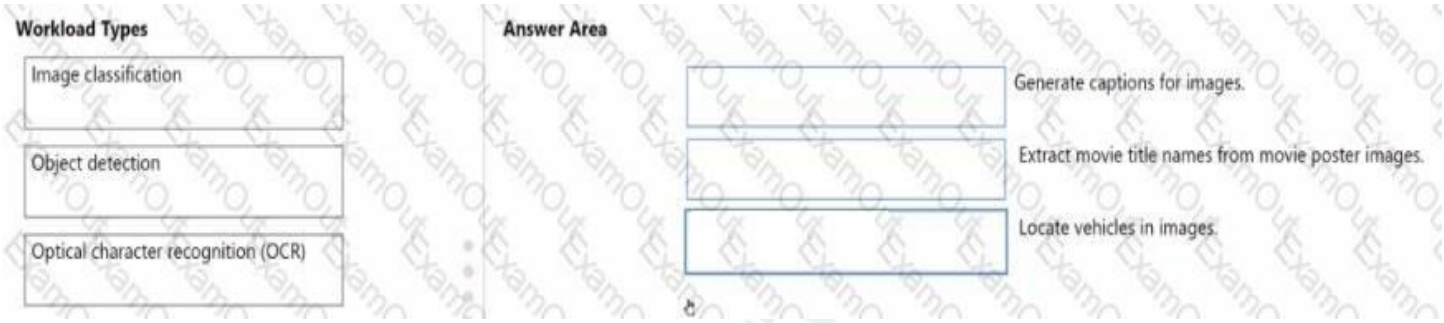
Integrate a facial recognition feature into an app.

Question #:54 - (Exam Topic 5)

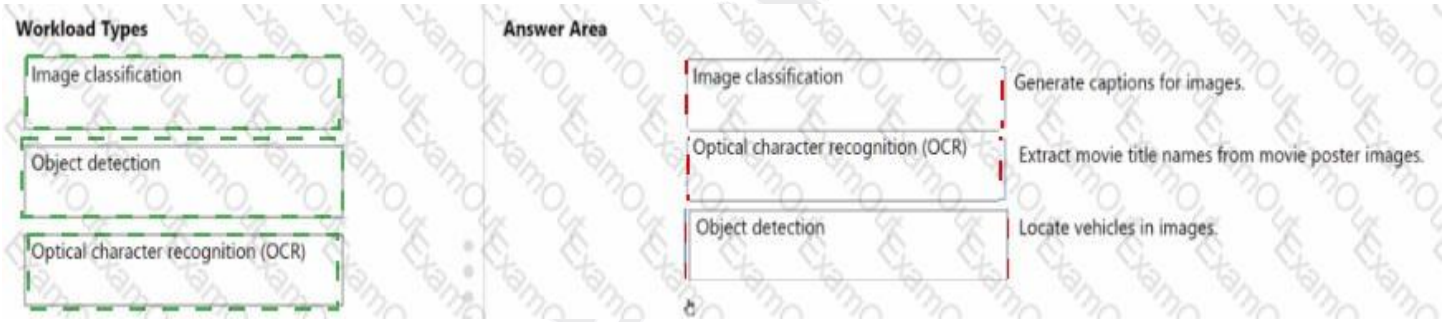
Match the types of computer vision workloads to the appropriate scenarios.

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.

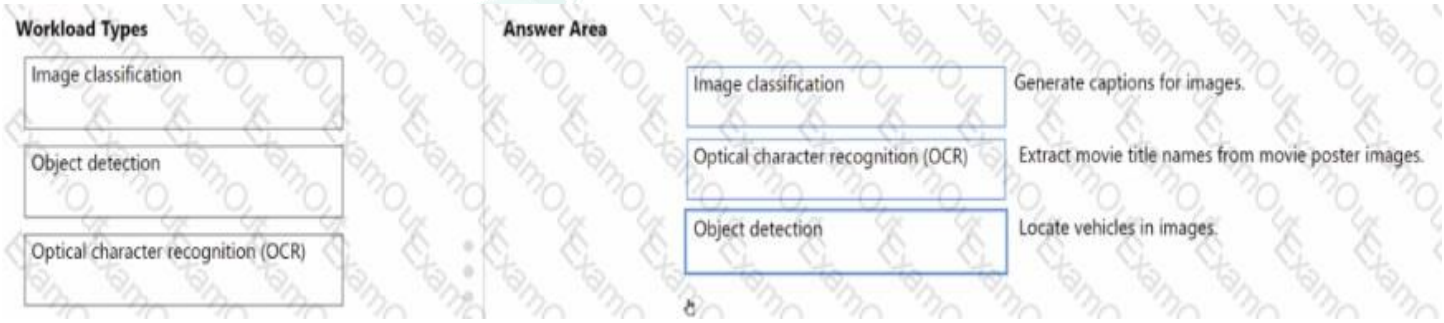
NOTE: Each correct match is worth one point.



Answer:



Explanation



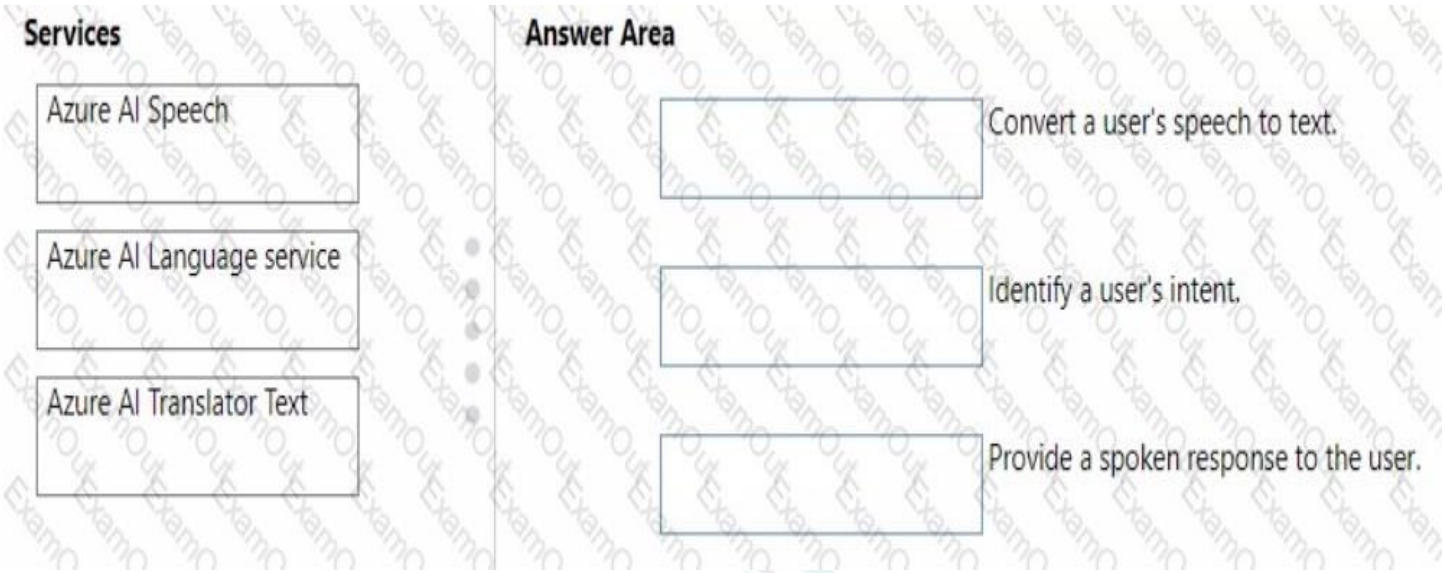
Question #:55 - (Exam Topic 5)

You plan to use Azure Cognitive Services to develop a voice controlled personal assistant app.

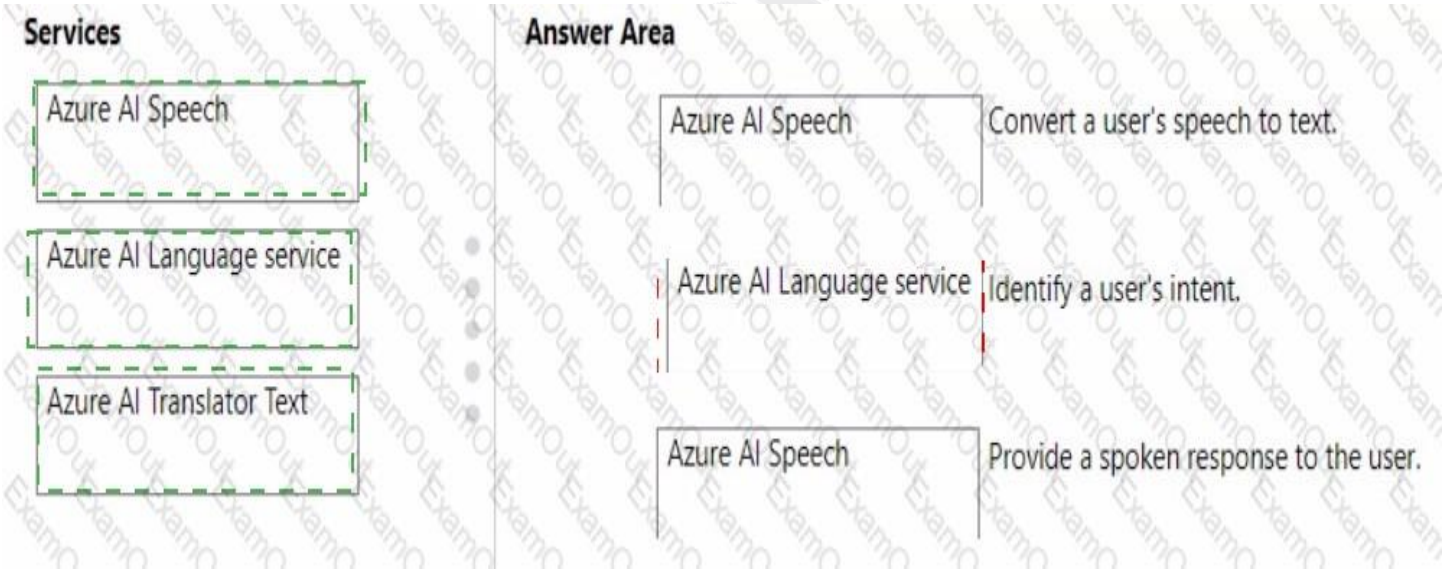
Match the Azure Cognitive Services to the appropriate tasks.

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.

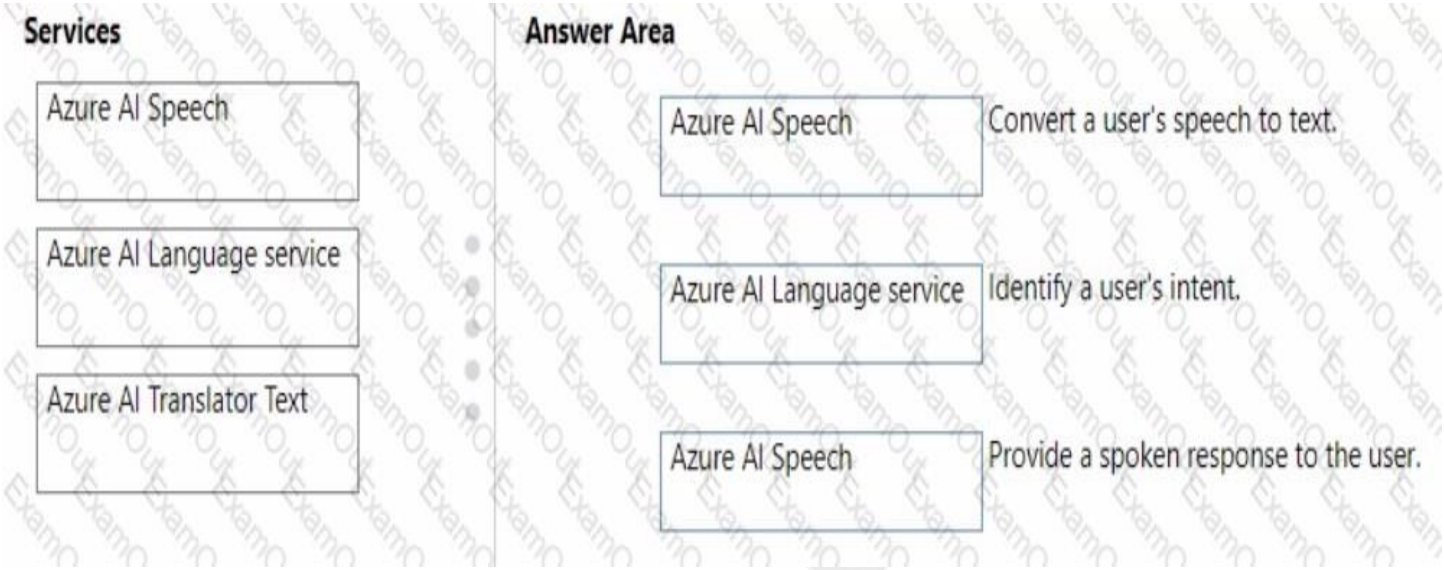


Answer:



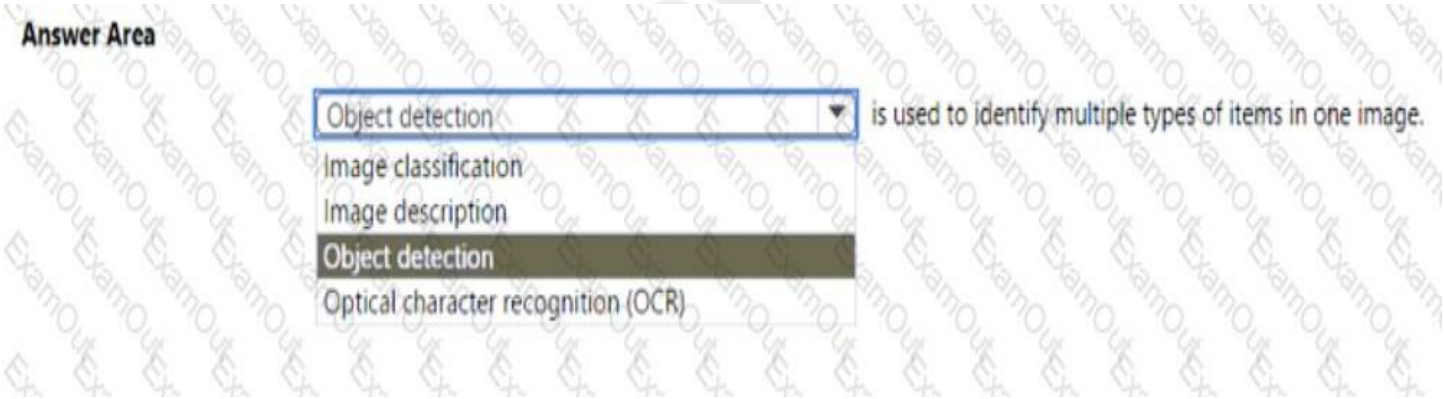
Explanation

A screenshot of a computer Description automatically generated

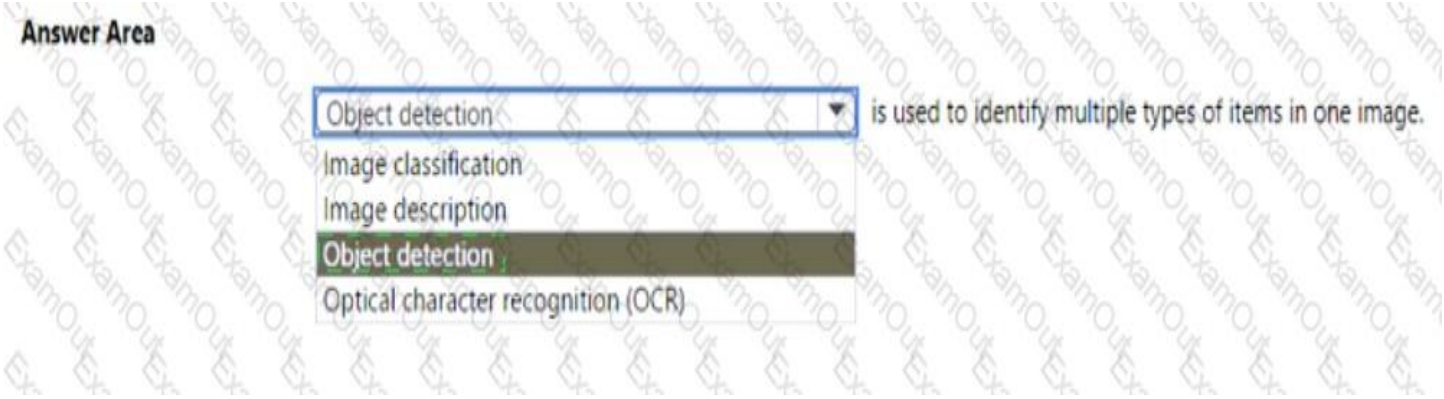


Question #:56 - (Exam Topic 5)

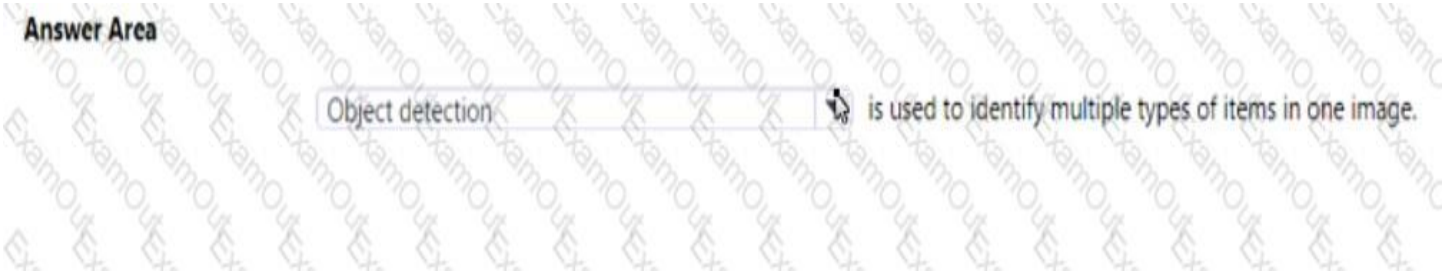
Select the answer that correctly completes the sentence



Answer:



Explanation



Question #:57 - (Exam Topic 5)

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

A. Azure Bot Service

B. Azure Cognitive Search

C. Language service

D. Speech

Answer: A

Question #:58 - (Exam Topic 5)

Which machine learning technique can be used for anomaly detection?

A. A machine learning technique that understands written and spoken language.

B. A machine learning technique that classifies objects based on user supplied images.

C. A machine learning technique that analyzes data over time and identifies unusual changes.

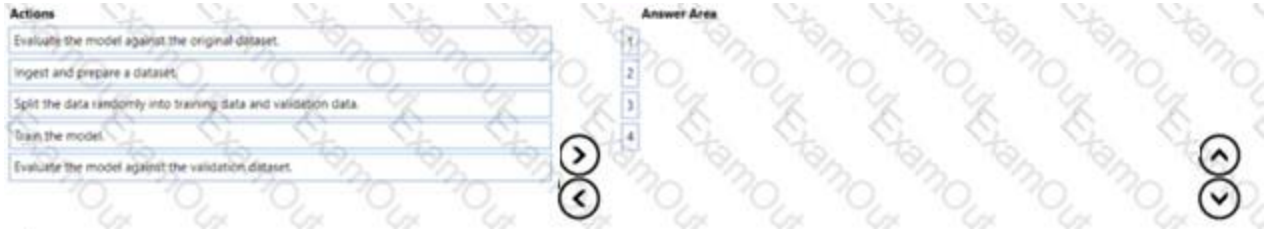
D. A machine learning technique that classifies images based on their contents.

Answer: C

Question #:59 - (Exam Topic 5)

You plan to deploy an Azure Machine Learning model by using the Machine Learning designer

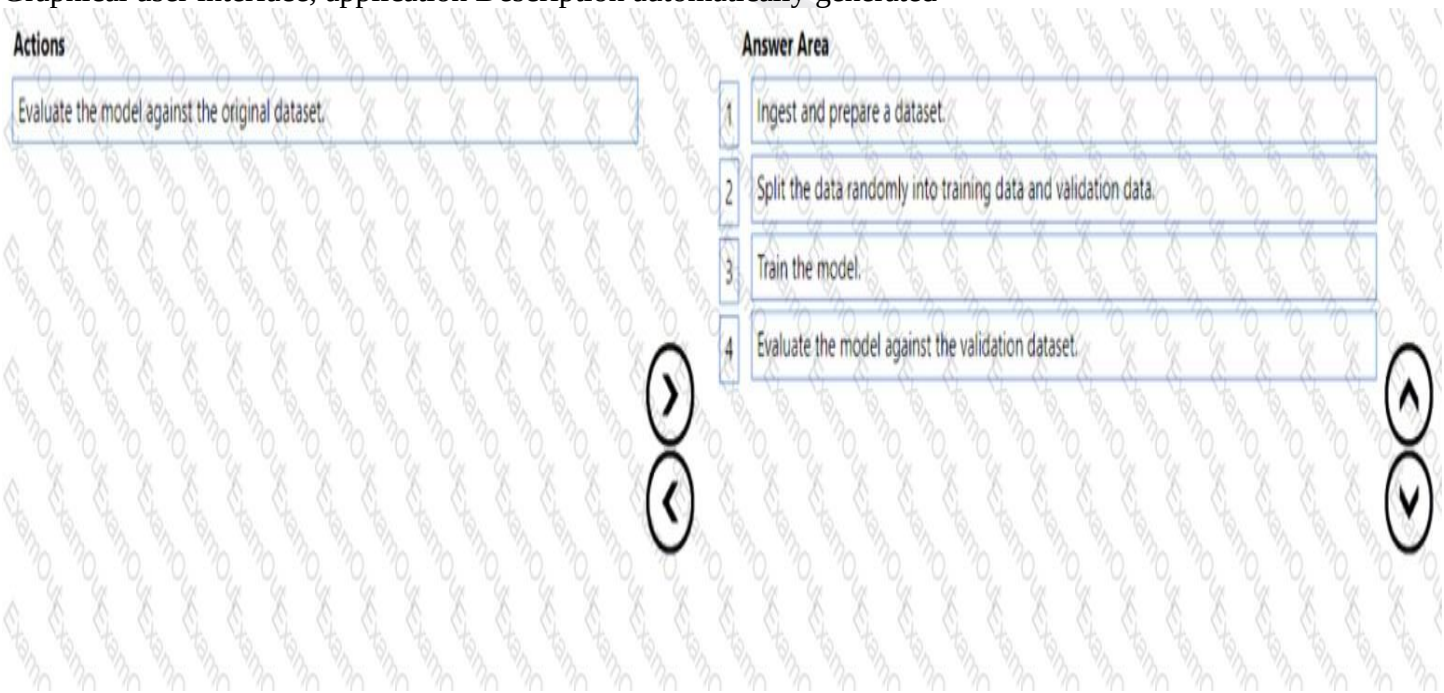
Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.



Answer:

Explanation

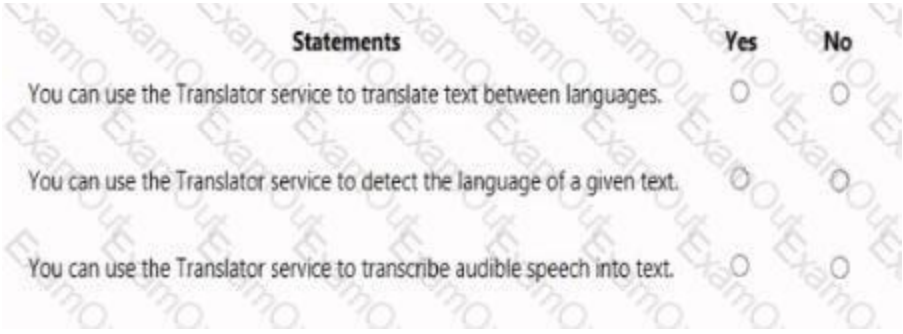
Graphical user interface, application Description automatically generated



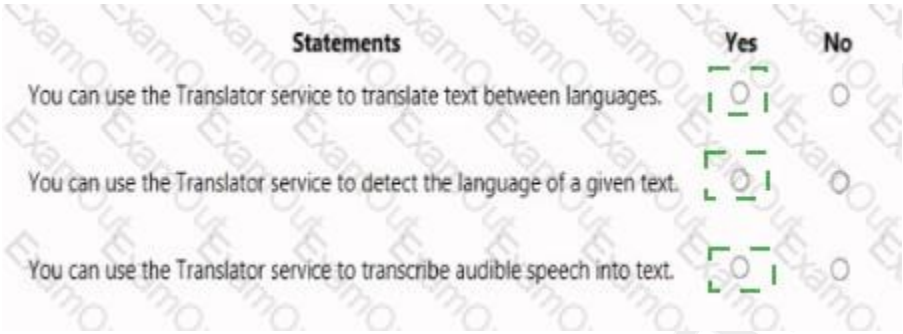
Question #:60 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

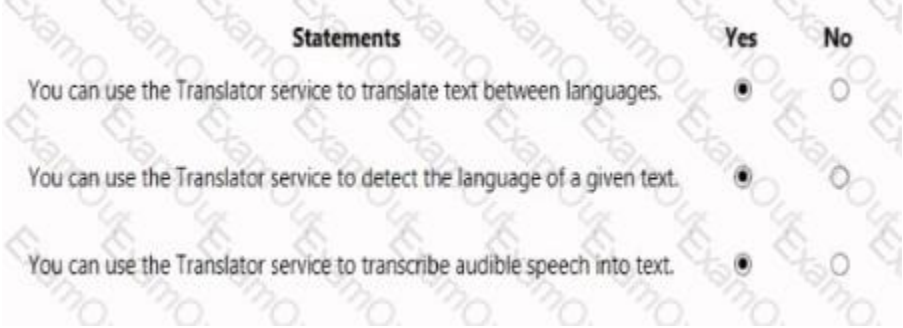


Answer:



Explanation

Graphical user interface, text, application Description automatically generated

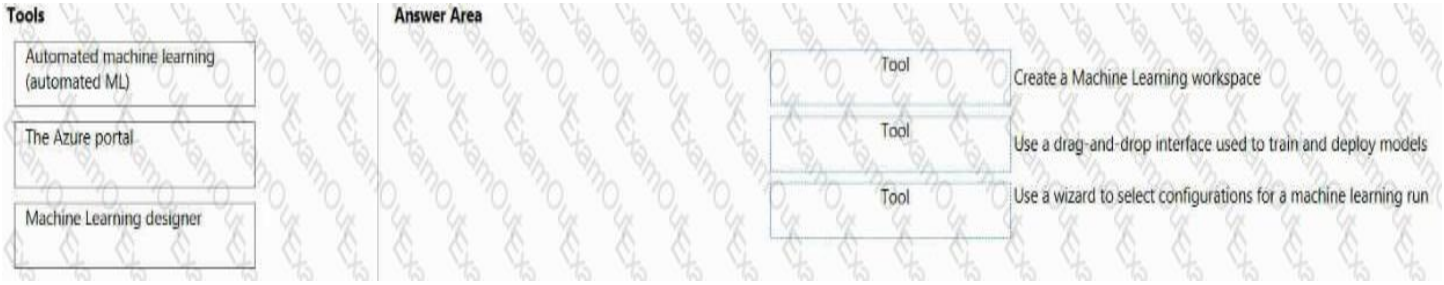


Question #:61 - (Exam Topic 5)

Match the tool to the Azure Machine Learning task.

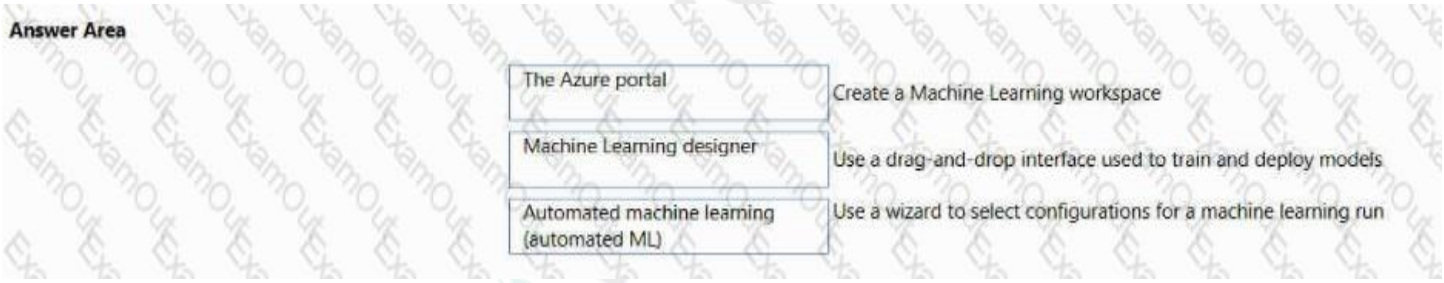
To answer, drag the appropriate tool from the column on the left to its tasks on the right. Each tool may be used once, more than once, or not at all

NOTE: Each correct match is worth one point.



Answer:

Explanation



Question #:62 - (Exam Topic 5)

An app that analyzes social media posts to identify their tone is an example of which type of natural language processing (NLP) workload?

A. sentiment analysis

B. key phrase extraction

C. entity recognition

D. speech recognition

Answer: A

Question #:63 - (Exam Topic 5)

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

Answer: D

Reference:

https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/improve-knowledge-base

Question #:64 - (Exam Topic 5)

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.

Answer: D

Question #:65 - (Exam Topic 5)

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

Answer:

Explanation

Question #:66 - (Exam Topic 5)

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

Answer: B

Reference:

https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4

Question #:67 - (Exam Topic 5)

You use Azure Machine Learning designer to build a model pipeline. What should you create before you can run the pipeline?

A. a Jupyter notebook

B. a registered model

C. a compute resource

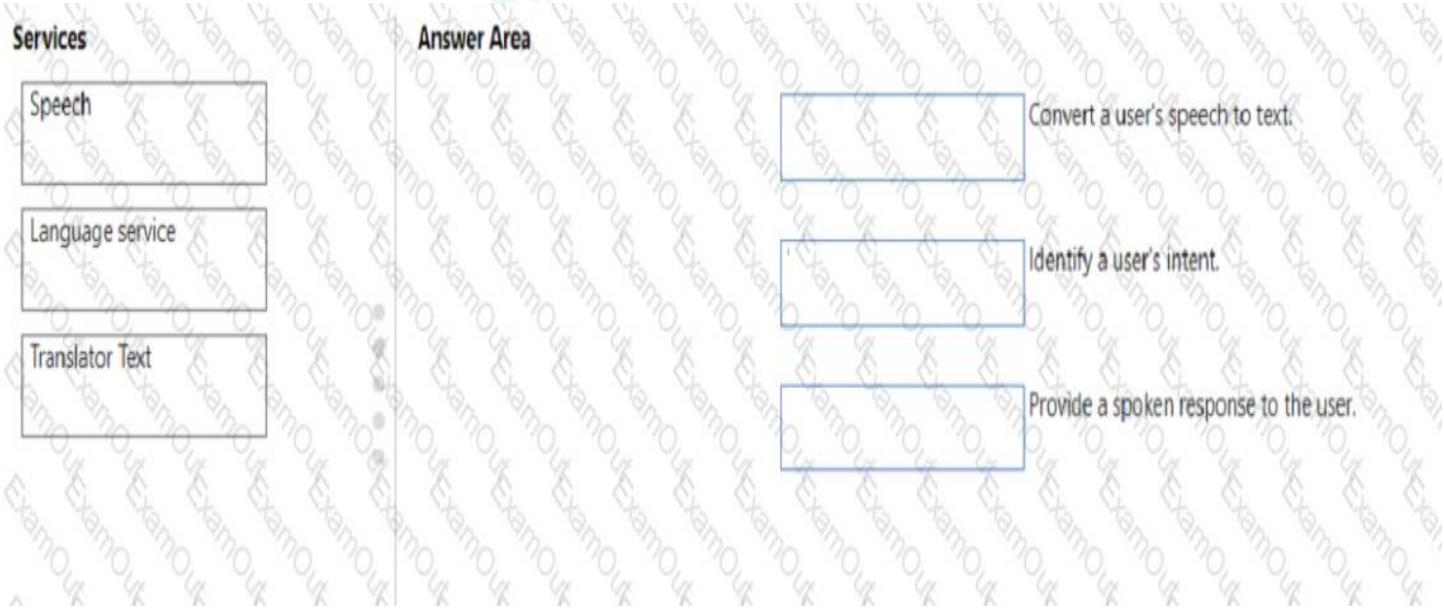
Answer: C

Question #:68 - (Exam Topic 5)

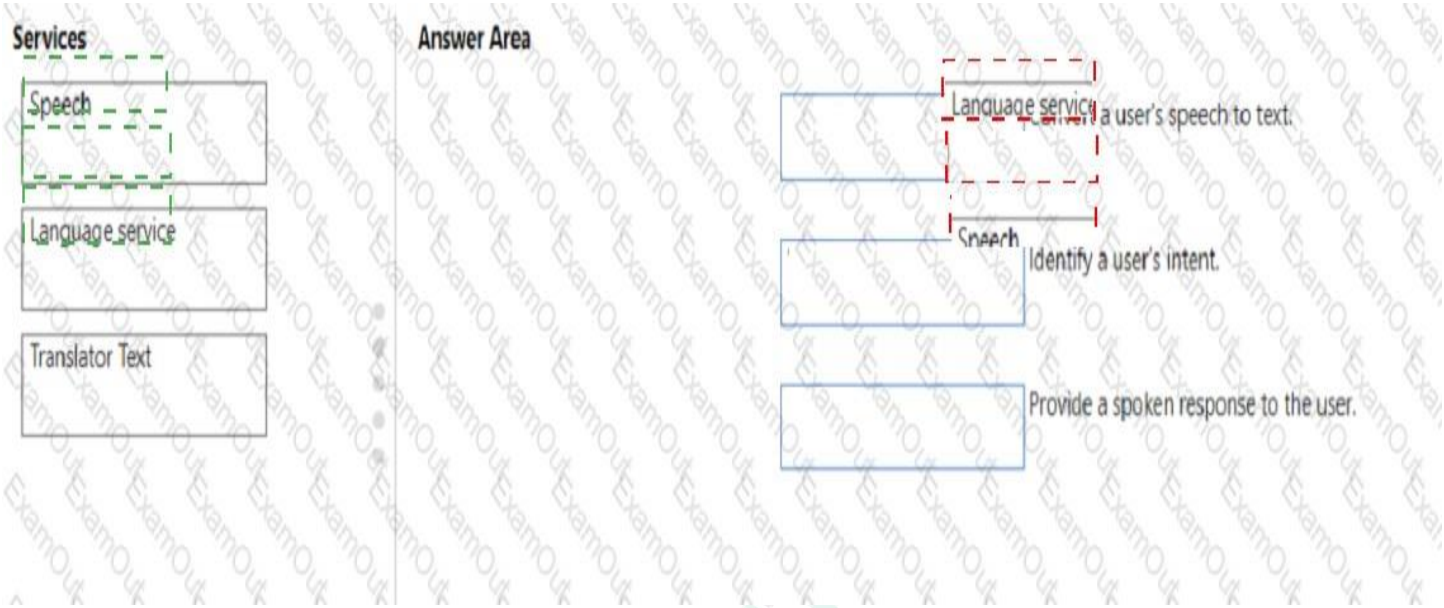
Match the Azure Cognitive Services service to the appropriate actions.

To answer, drag the appropriate service from the column on the left to its action on the right. Each service may he used once, more than once, or not at all.

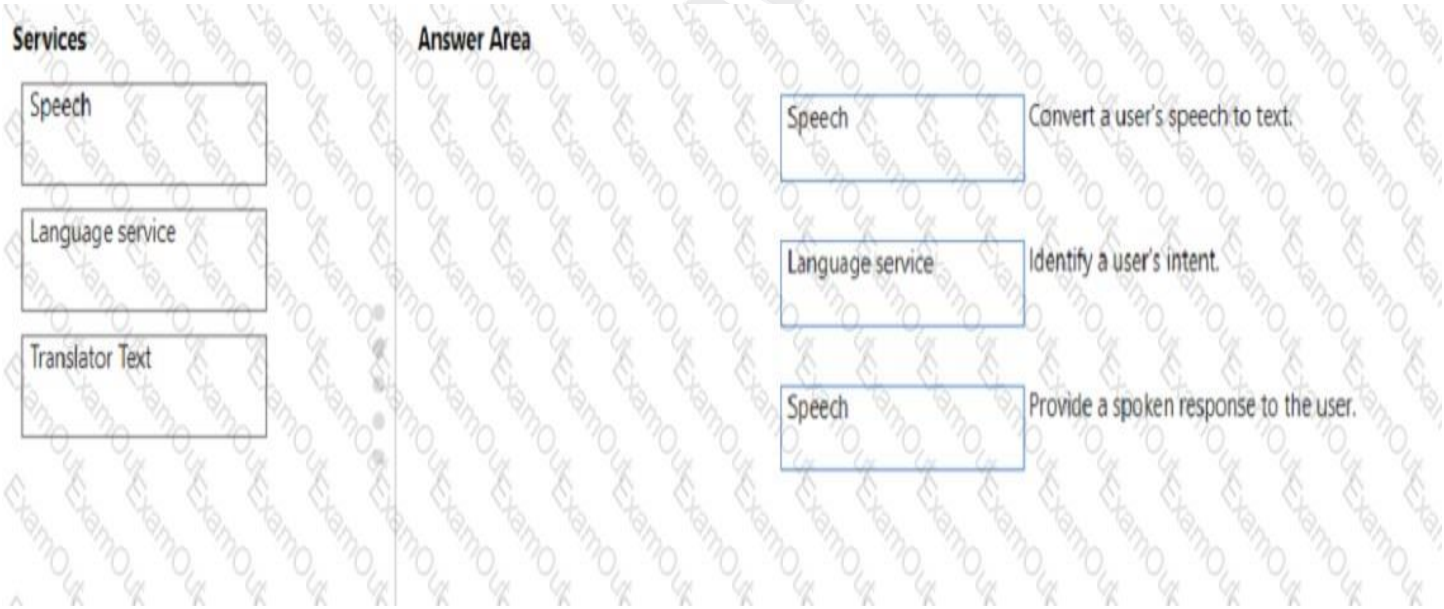
NOTE: Each correct match is worth one point.



Answer:



Explanation



Question #:69 - (Exam Topic 5)

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

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

See the below in explanation:

Explanation

Classification

Question #:70 - (Exam Topic 5)

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

Answer: A B

Question #:71 - (Exam Topic 5)

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

A. PDF

B. PPTX

C. XML

D. ZIP

Answer: A

Reference:

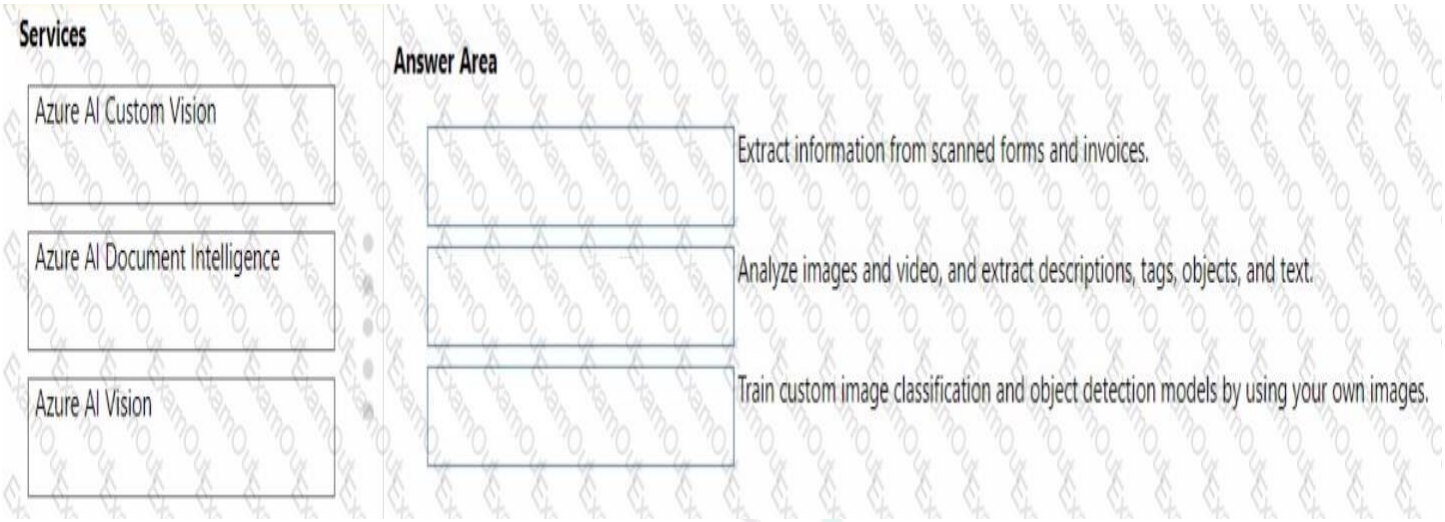
https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/data-sources-and-content

Question #:72 - (Exam Topic 5)

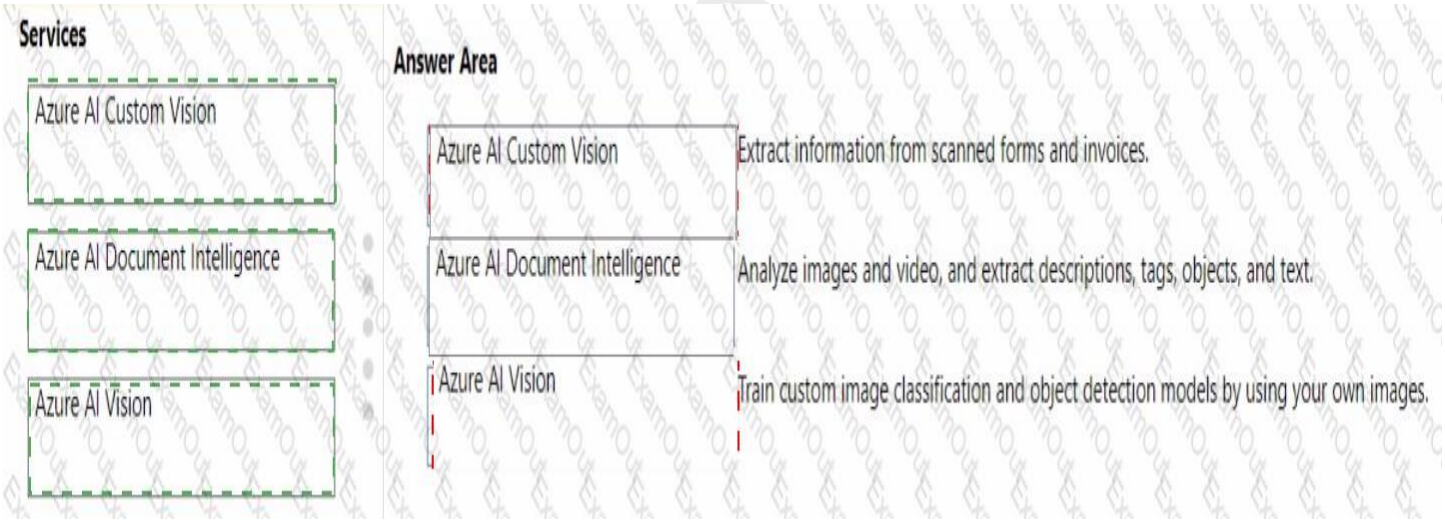
Match the computer vision service to the appropriate Al workload.

To answer, drag the appropriate service from the column on the left to its workload on the right. Each service may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.



Answer:

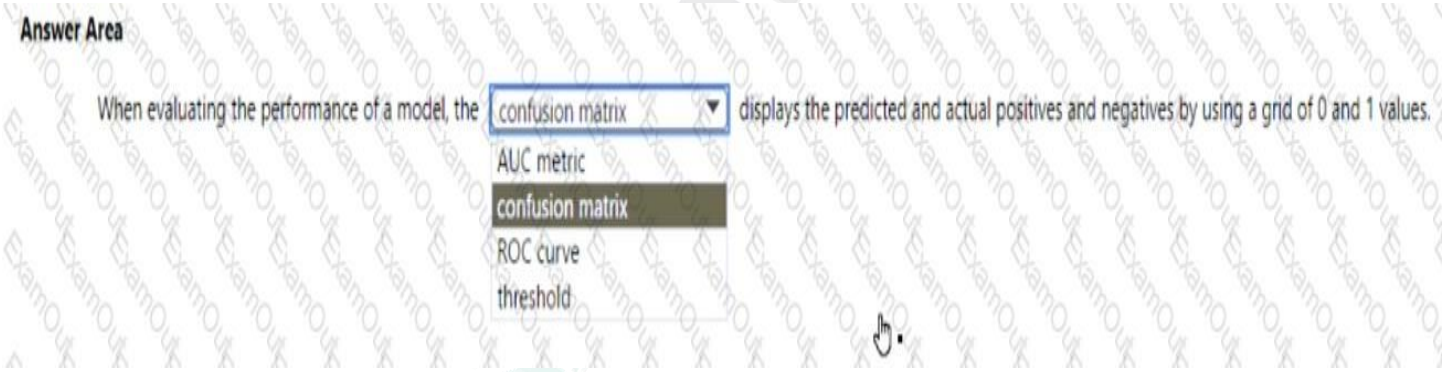


Explanation

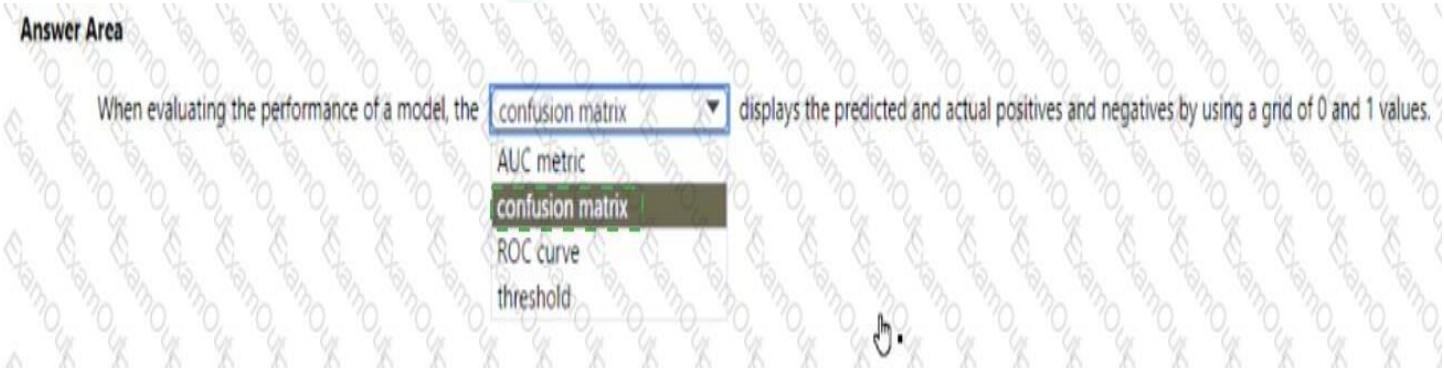
A close-up of a document Description automatically generated

Question #:73 - (Exam Topic 5)

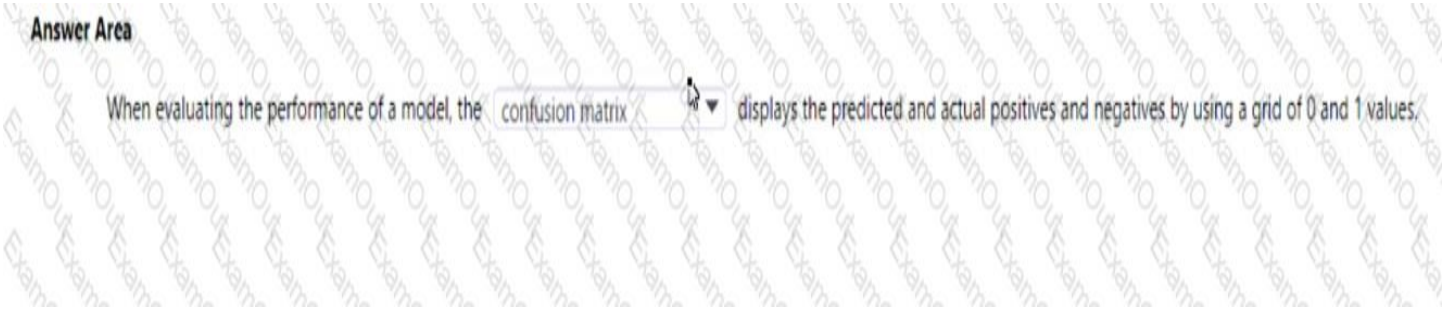
Select the answer that correctly completes the sentence.



Answer:



Explanation



Question #:74 - (Exam Topic 5)

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)

Answer: A

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 #:75 - (Exam Topic 5)

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.

Answer: B

Question #:76 - (Exam Topic 5)

Which Azure Al Language feature can be used to retrieve data, such as dates and people's names, from social media posts?

A. language detection

B. speech recognition

C. key phrase extraction

D. entity recognition

Answer: C

Question #:77 - (Exam Topic 5)

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

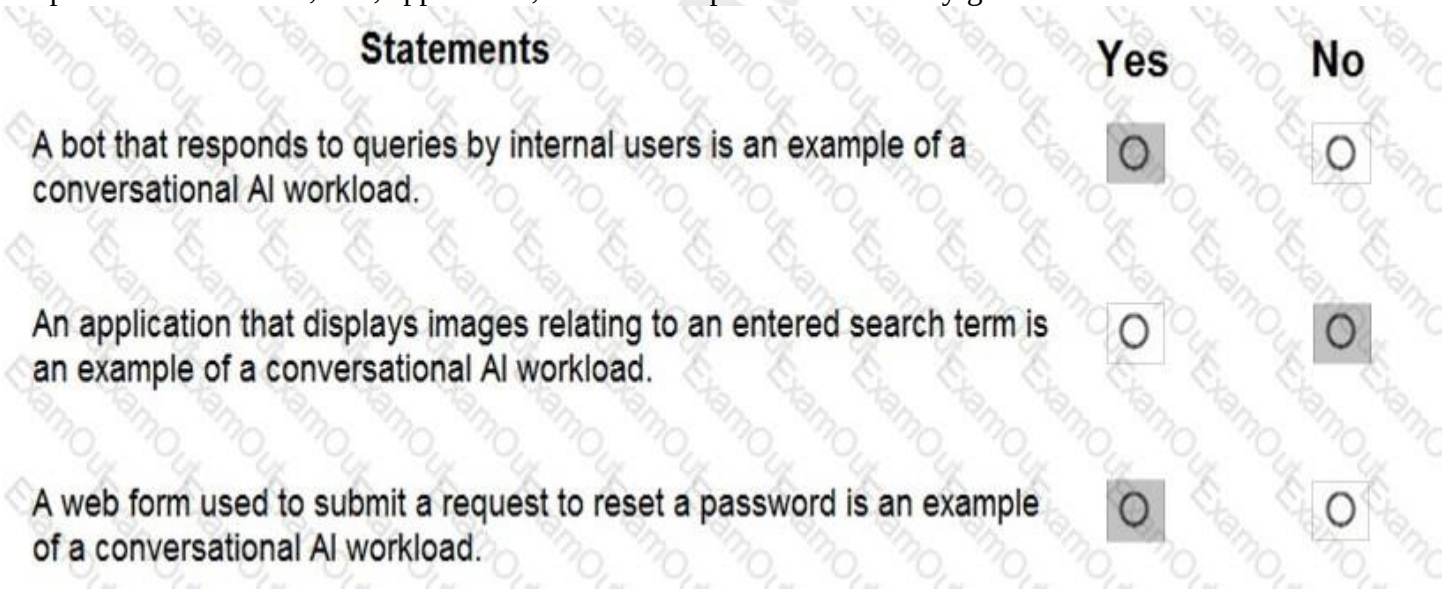
NOTE: Each correct selection is worth one point.

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

Answer:

Explanation

Graphical user interface, text, application, email Description automatically generated

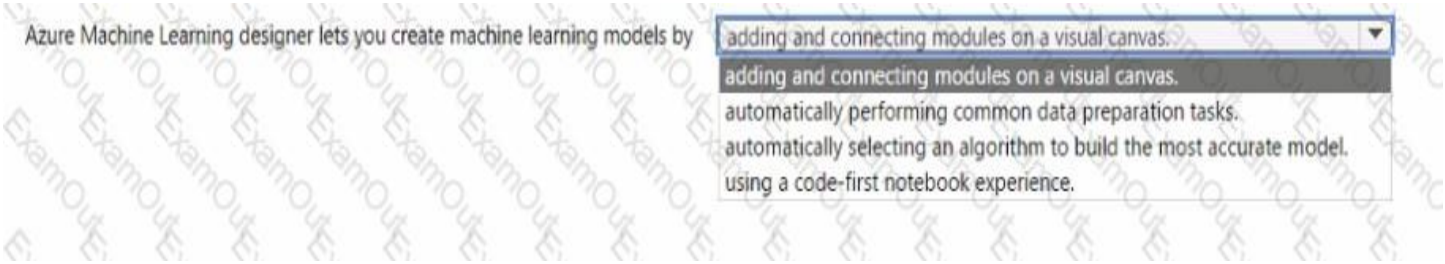


Reference:

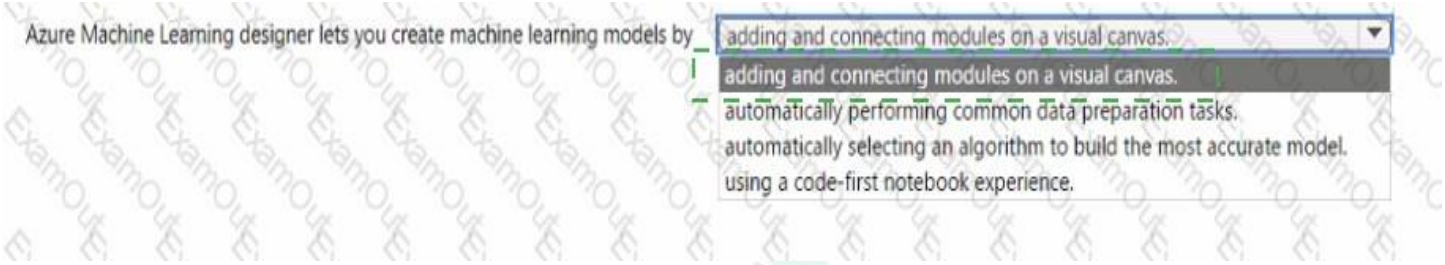
https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4

Question #:78 - (Exam Topic 5)

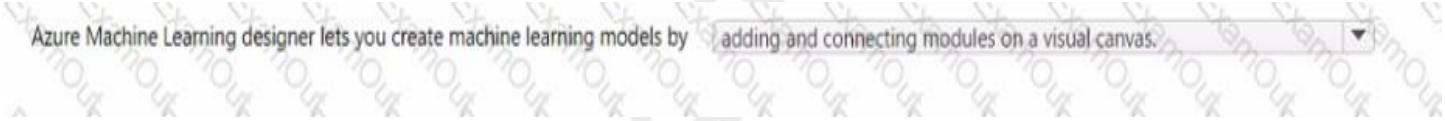
Select the answer that correctly completes the sentence.



Answer:



Explanation



Question #:79 - (Exam Topic 5)

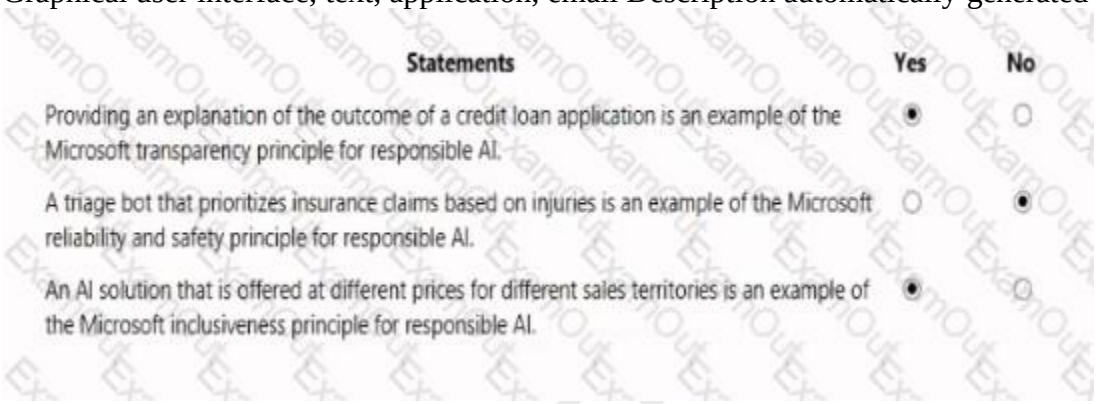
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Answer:

Explanation

Graphical user interface, text, application, email Description automatically generated



Question #:80 - (Exam Topic 5)

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

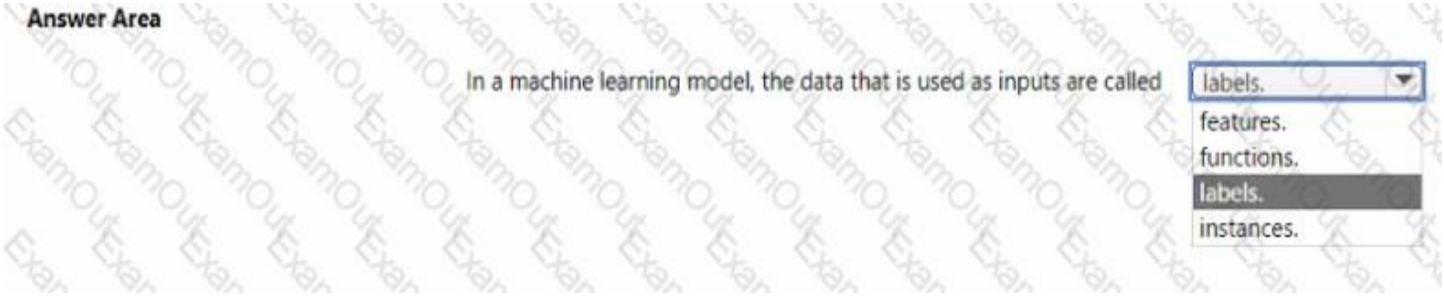
C. Custom Vision Image Classification capabilities

D. Language understanding capabilities

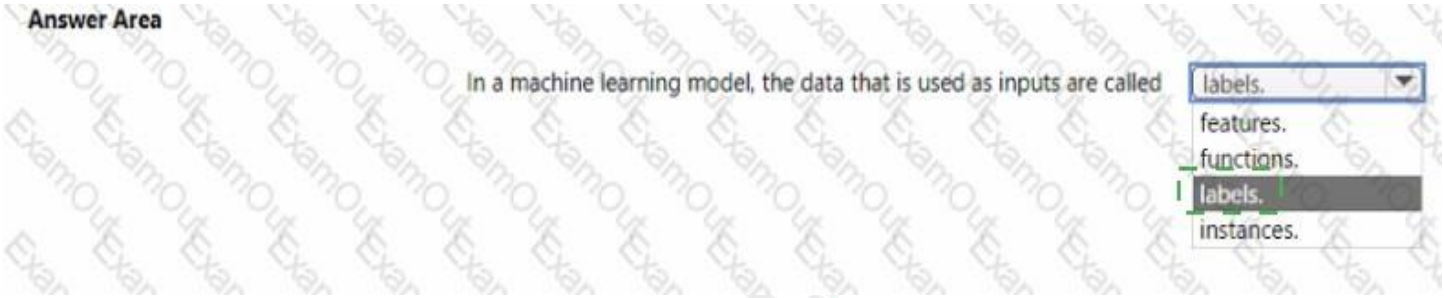
Answer: B

Question #:81 - (Exam Topic 5)

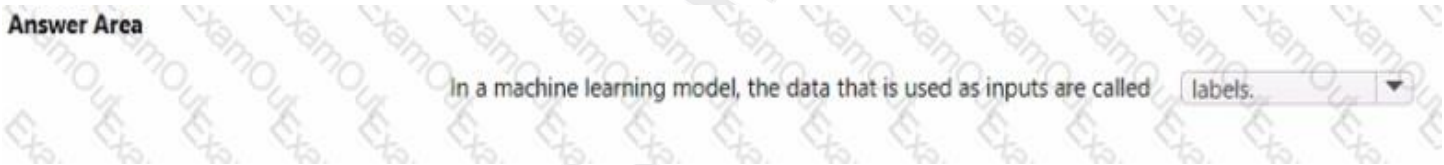
Select the answer that correctly completes the sentence.



Answer:

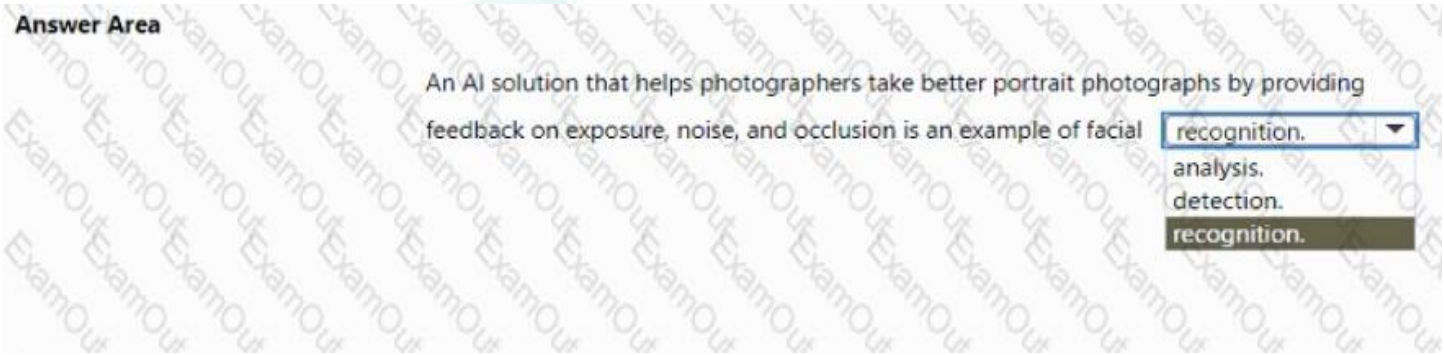


Explanation

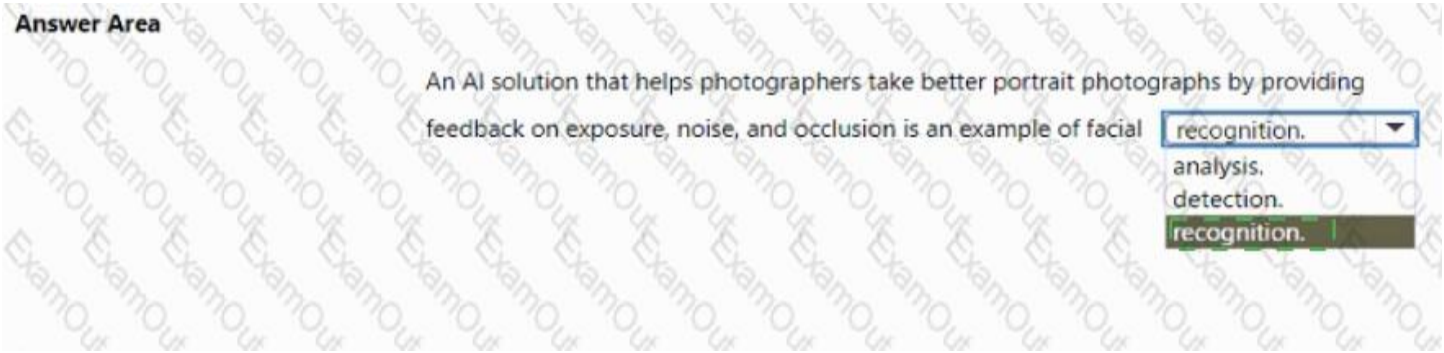


Question #:82 - (Exam Topic 5)

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



Answer:



Explanation

Question #:83 - (Exam Topic 5)

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

Answer: A D

Question #:84 - (Exam Topic 5)

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.

Answer: D

Question #:85 - (Exam Topic 5)

You need to track multiple versions of a model that was trained by using Azure Machine Learning. What should you do?

A. Provision an inference duster.

B. Explain the model.

C. Register the model.

D. Register the training data.

Answer: C

Question #:86 - (Exam Topic 5)

You need to create a customer support solution to help customers access information. The solution must support email, phone, and live chat channels. Which type of Al solution should you use?

A. natural language processing (NLP)

B. computer vision

C. machine learning

D. chatbot

Answer: D

Question #:87 - (Exam Topic 5)

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

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:

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.	○	○

Explanation

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.	○	◉

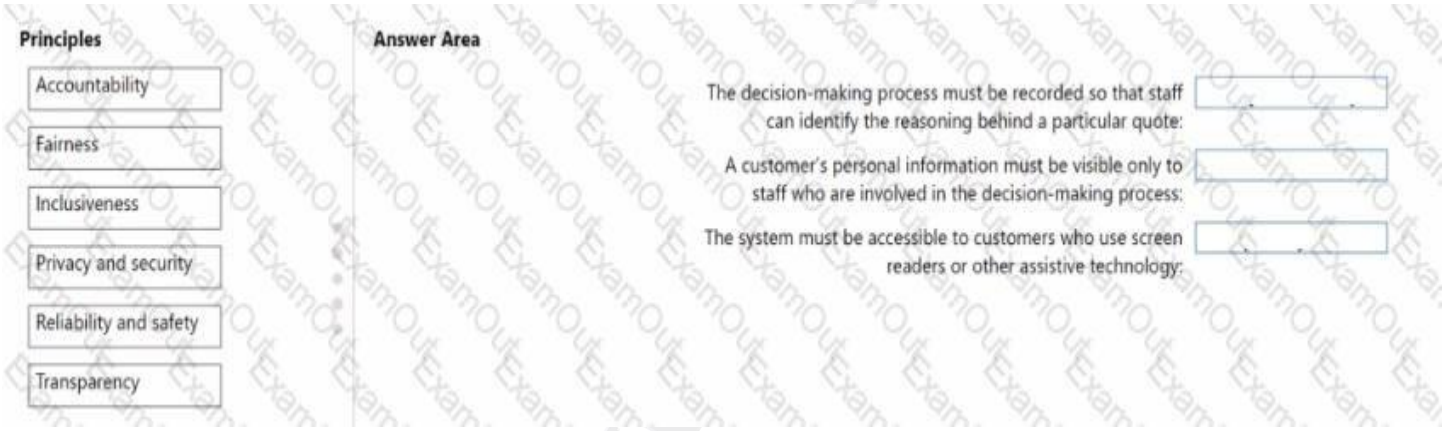
Question #:88 - (Exam Topic 5)

You are designing a system that will generate insurance quotes automatically.

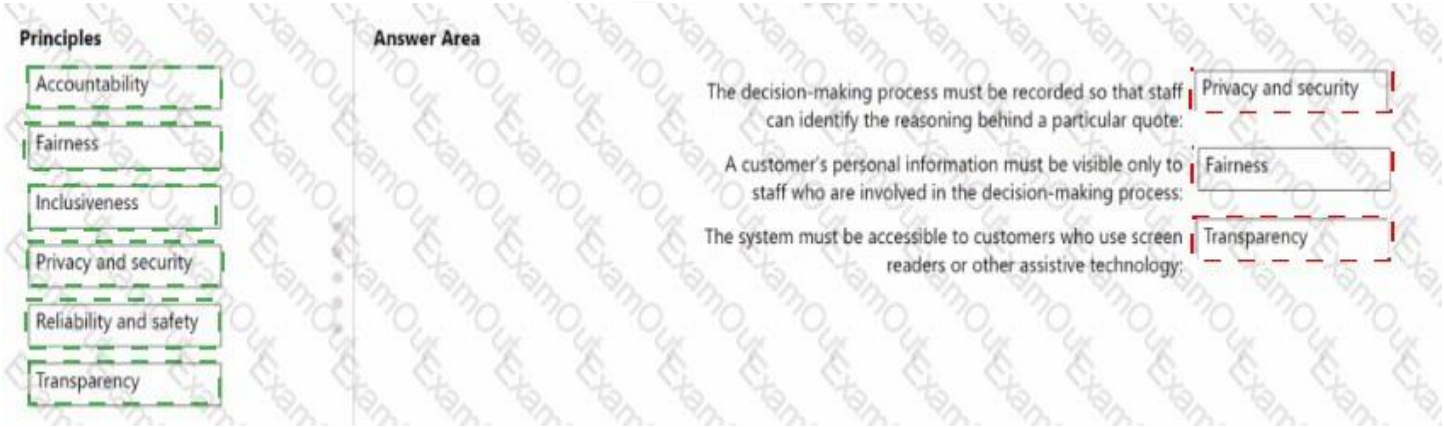
Match the Microsoft responsible Al principles to the appropriate requirements.

To answer, drag the appropriate principle 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.

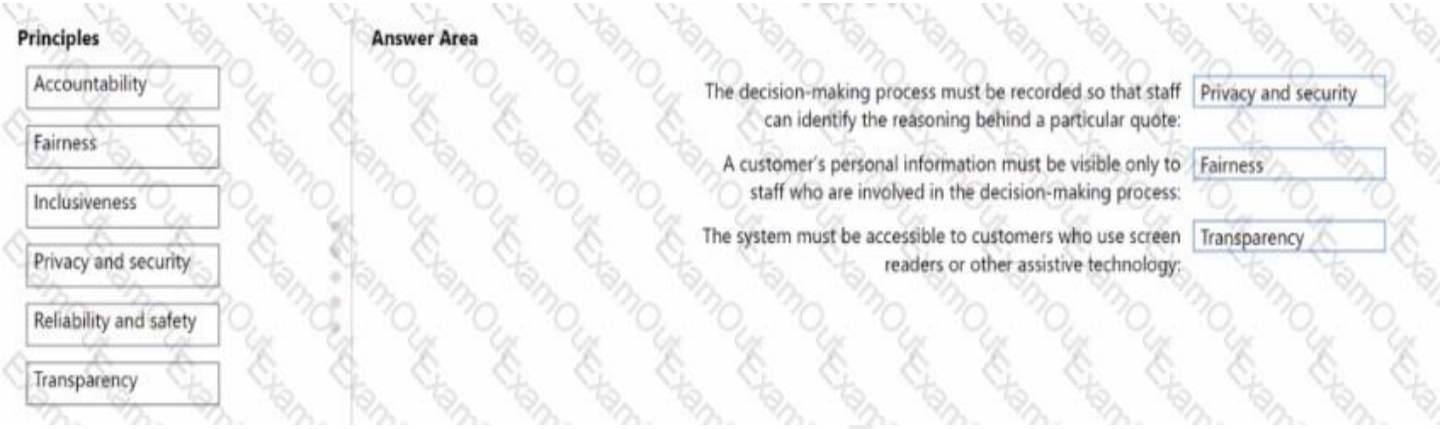
NOTE: Each correct match is worth one point.



Answer:



Explanation



Question #:89 - (Exam Topic 5)

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

Answer: C D

Question #:90 - (Exam Topic 5)

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

Answer: B C

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, self-service is a critical facet of any customer-facing communications strategy.

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 #:91 - (Exam Topic 5)

Select the answer that correctly completes the sentence.

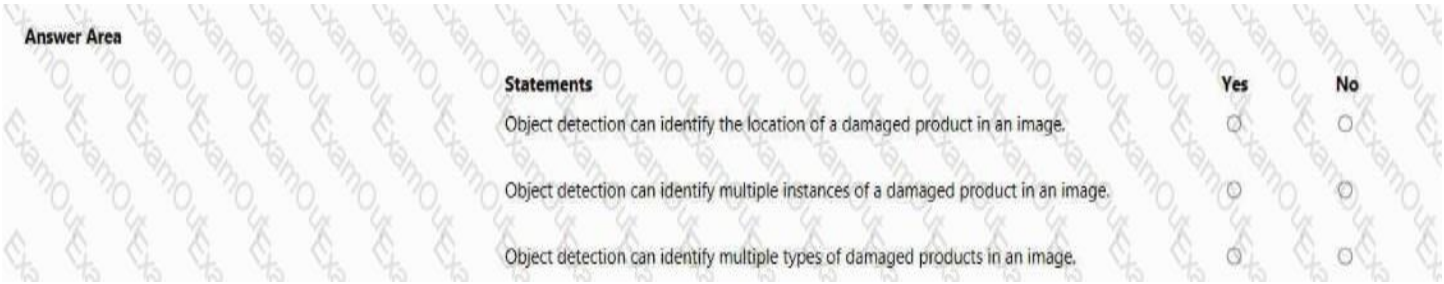
Answer:

Explanation

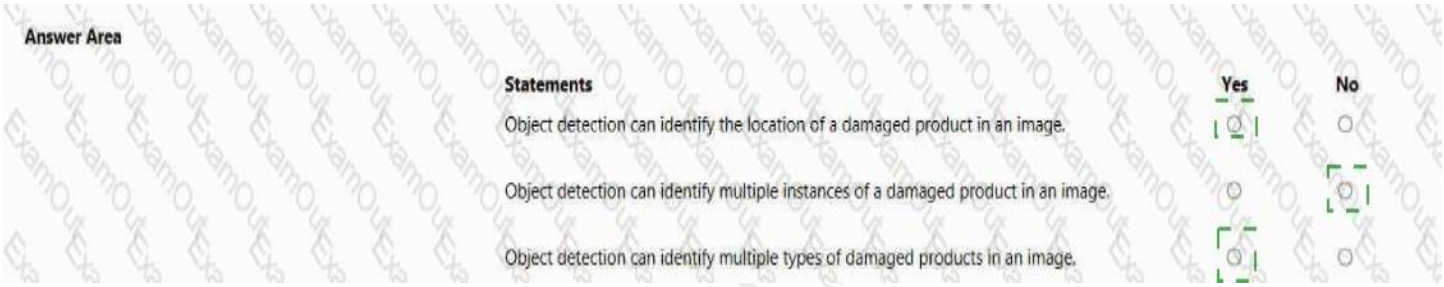
Question #:92 - (Exam Topic 5)

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

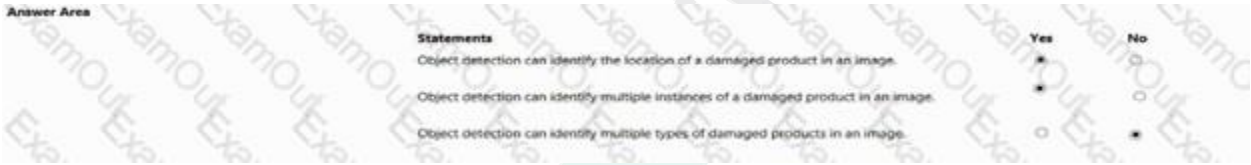
NOTE: Each correct selection is worth one point.



Answer:



Explanation

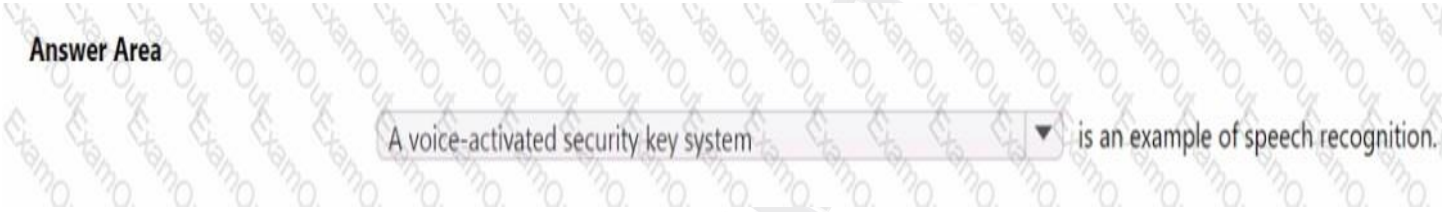


Question #:93 - (Exam Topic 5)

Select the answer that correctly completes the sentence.

Answer:

Explanation



Question #:94 - (Exam Topic 5)

You need to generate cartoons for use in a brochure. Each cartoon will be based on a text description.

Which Azure OpenAI model should you use?

A. Codex

B. DALL-E

C. GPT-3.5

D. GPT-4

Answer: B

Question #:95 - (Exam Topic 5)

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

NOTE; Each correct selection is worth one point.

Answer:

Explanation

Question #:96 - (Exam Topic 5)

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

Answer:

Explanation

Question #:97 - (Exam Topic 5)

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.

Answer:

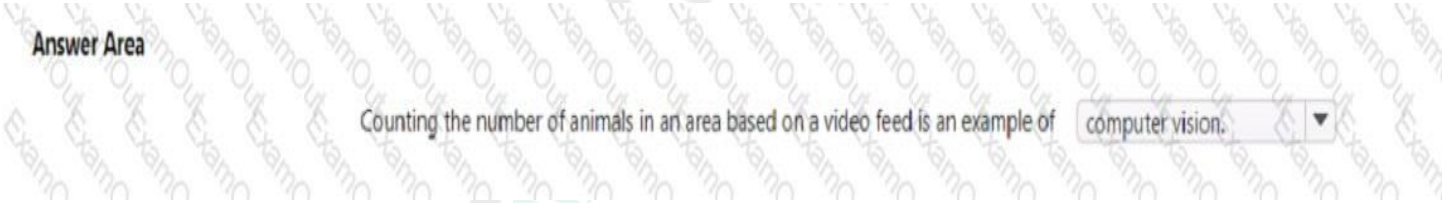
Explanation

Question #:98 - (Exam Topic 5)

Select the answer that correctly completes the sentence.

Answer:

Explanation



Question #:99 - (Exam Topic 5)

brectly completes the sentence.

Answer:

Explanation

Question #:100 - (Exam Topic 5)

Which Azure service can use the prebuilt receipt model in Azure Al Document Intelligence?

A. Azure Al Computer Vision

B. Azure Machine Learning

C. Azure Al Services

D. Azure Al Custom Vision

Answer: C

Question #:101 - (Exam Topic 5)

You need to predict the animal population of an area.

Which Azure Machine Learning type should you use?

A. clustering

B. classification

C. regression

Answer: C

Question #:102 - (Exam Topic 5)

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

A. regular expression

B. machine-learned

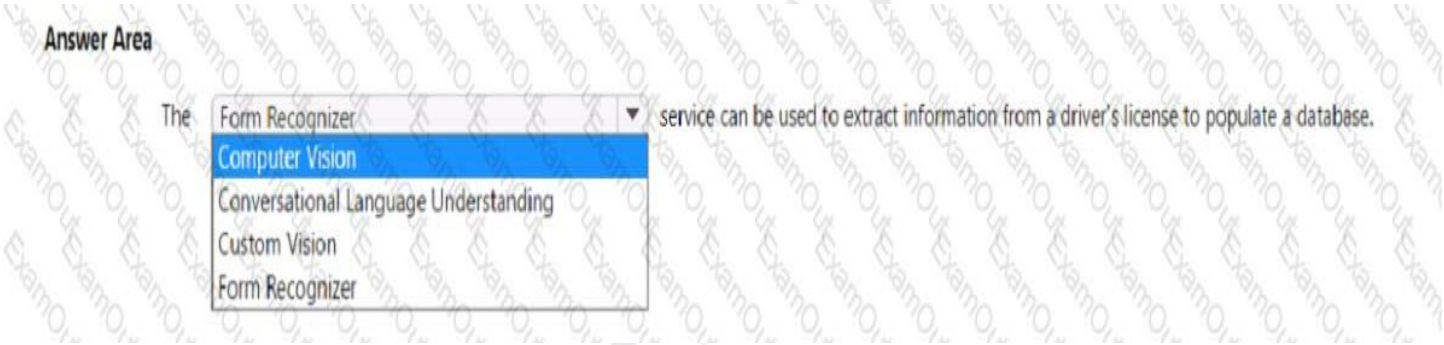
C. list

D. Pattern-any

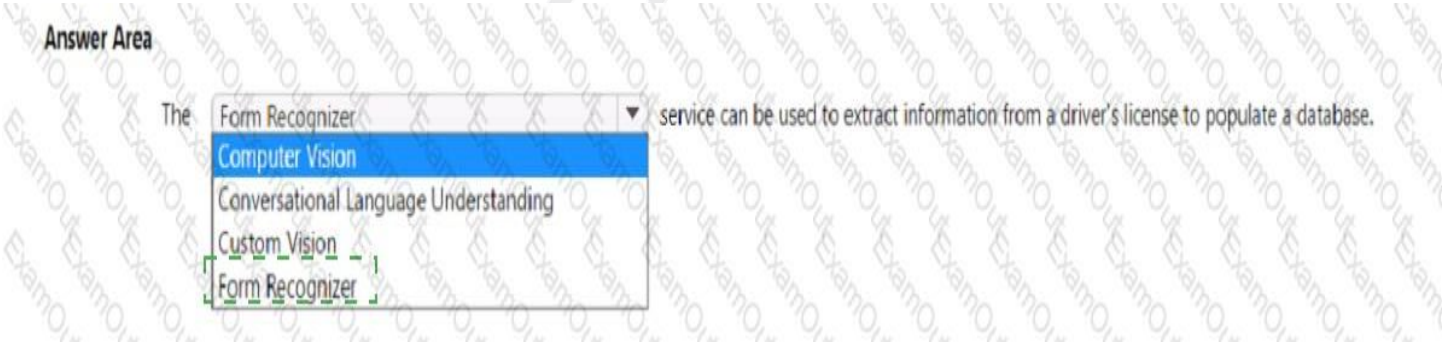
Answer: C

Question #:103 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



Answer:



Explanation

Question #:104 - (Exam Topic 5)

You have a chatbot that answers technical questions by using the Azure OpenAI GPT-3.5 large language

model (LLM). Which two statements accurately describe the chatbot? Each correct answer presents a complete solution.

NOTE: Each correct answer is worth one point.

A. Grounding data can be used to constrain the output of the chatbot.

B. The chatbot will always provide accurate data.

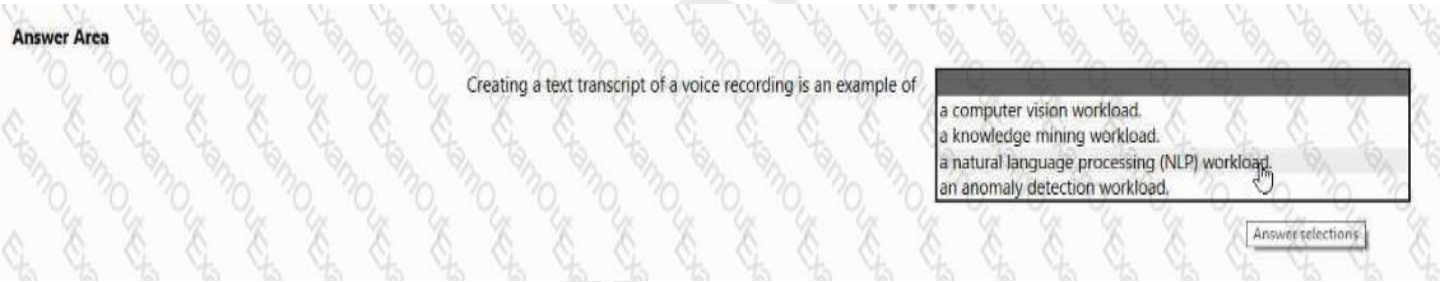
C. The chatbot might respond with inaccurate data.

D. The chatbot is suitable for performing medical diagnosis.

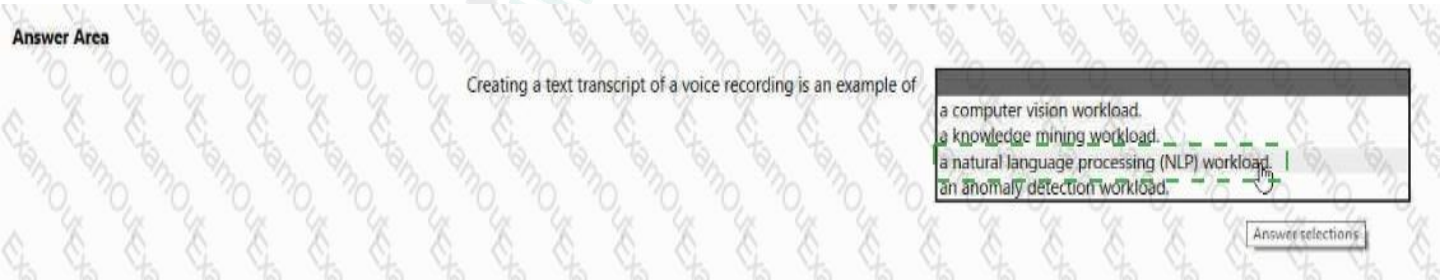
Answer: A C

Question #:105 - (Exam Topic 5)

Select the answer that correctly completes the sentence.



Answer:



Explanation

Question #:106 - (Exam Topic 5)

Which three actions improve the quality of responses returned by a generative Al solution that uses GPT-3.5?

Each correct answer presents a complete solution.

NOTE: Each correct answer is worth one point.

A. Add grounding data to prompts.

B. Provide additional examples to prompts.

C. Modify tokenization.

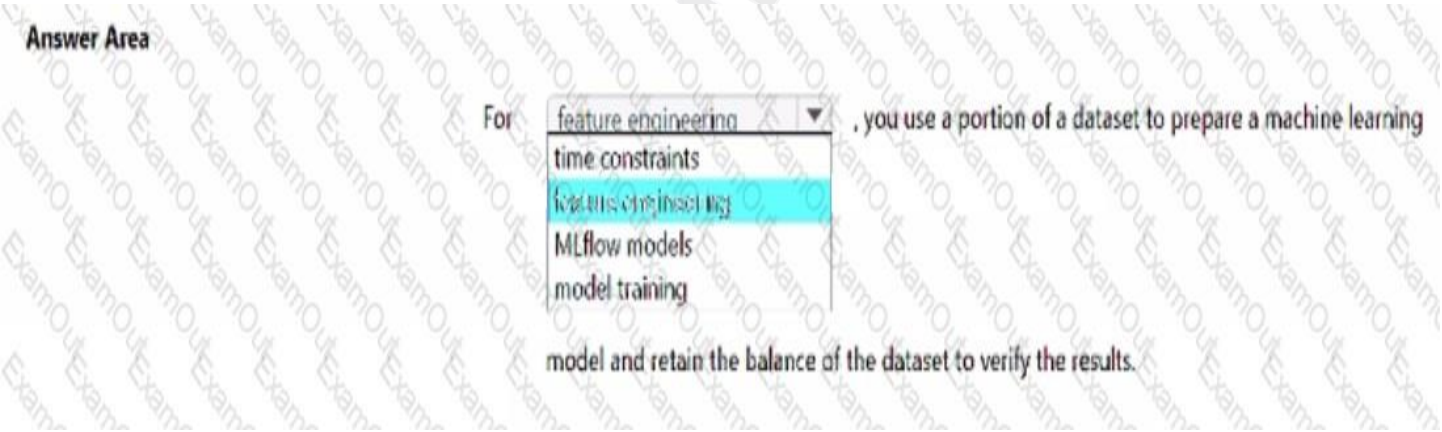
D. Add training data to prompts.

E. Modify system messages.

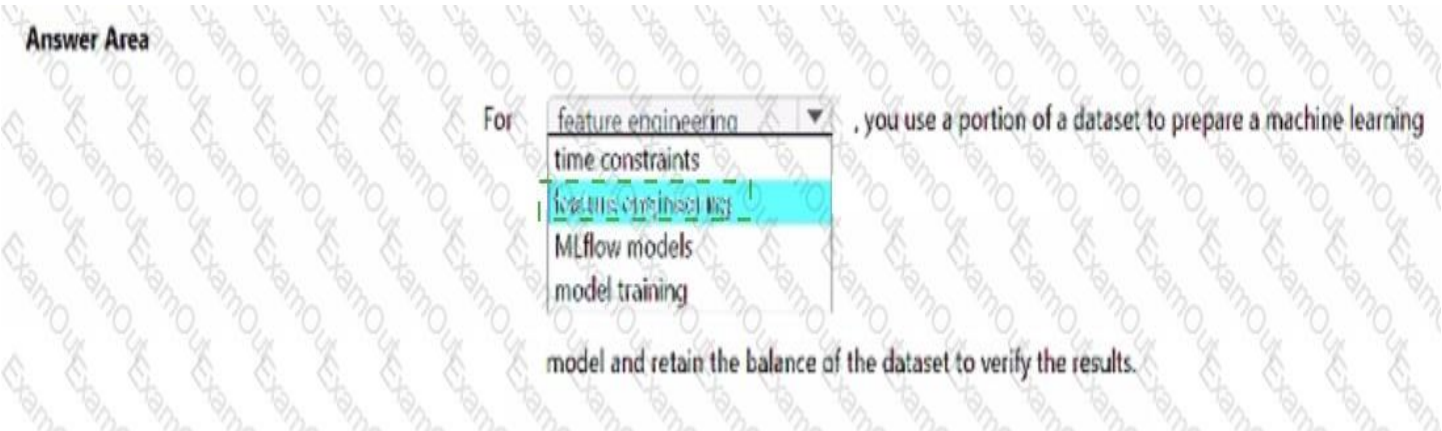
Answer: A B D

Question #:107 - (Exam Topic 5)

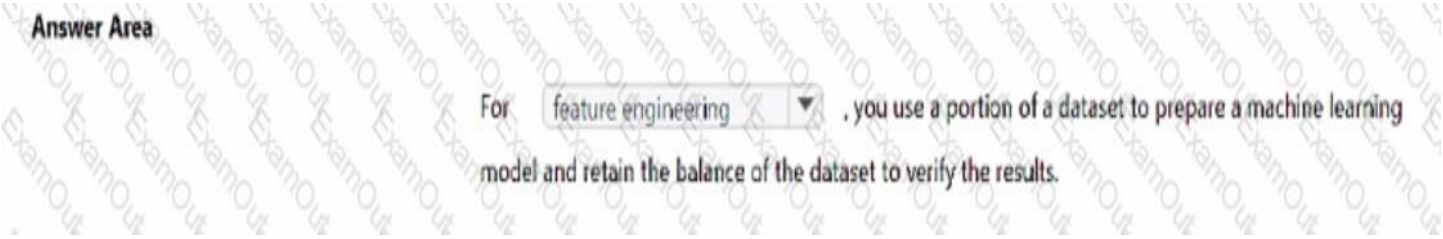
Select the answer that correctly completes the sentence.



Answer:



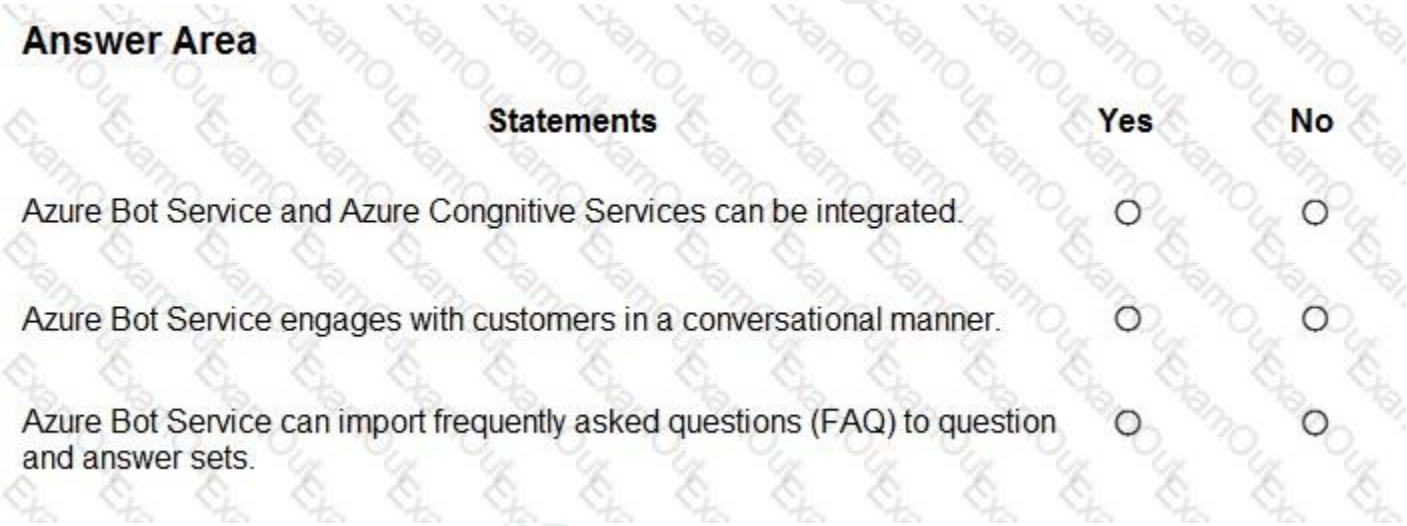
Explanation



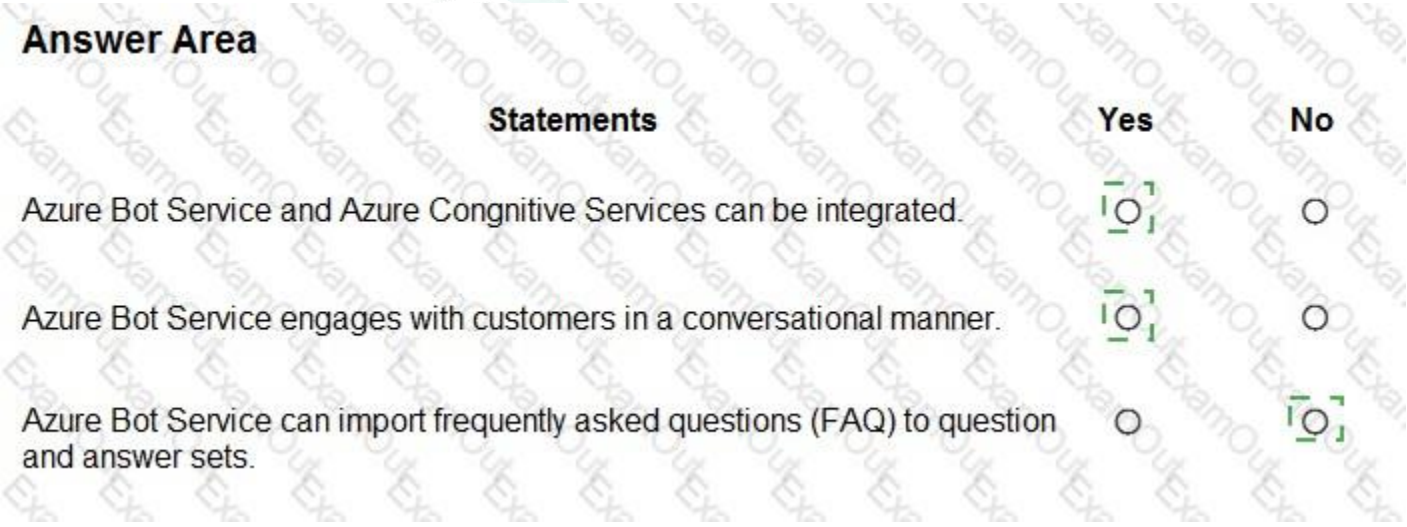
Question #:108 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.



Answer:



Explanation

Answer Area

Statements	Yes	No
Azure Bot Service and Azure Congnitive Services can be integrated.	○	○
Azure Bot Service engages with customers in a conversational manner.	○	○
Azure Bot Service can import frequently asked questions (FAQ) to question and answer sets.	○	○

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 #:109 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

Statements	Yes	No
A restaurant can use a chatbot to empower customers to make reservations by using a website or an app.	○	○
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:

Statements	Yes	No
A restaurant can use a chatbot to empower customers to make reservations by using a website or an app.	○	○
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.	○	○

Explanation

Graphical user interface, text, application, email Description automatically generated

Statements	Yes	No
A restaurant can use a chatbot to empower customers to make reservations by using a website or an app.	○	○
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.	○	○

Reference:

https://docs.microsoft.com/en-us/azure/bot-service/bot-service-overview-introduction?view=azure-bot-service-4

Question #:110 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

Answer:

Explanation

Question #:111 - (Exam Topic 5)

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.

Answer: A C E

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 #:112 - (Exam Topic 5)

A smart device that responds to the question. "What is the stock price of Contoso, Ltd.?" is an example of which Al workload?

A. computer vision

B. anomaly detection

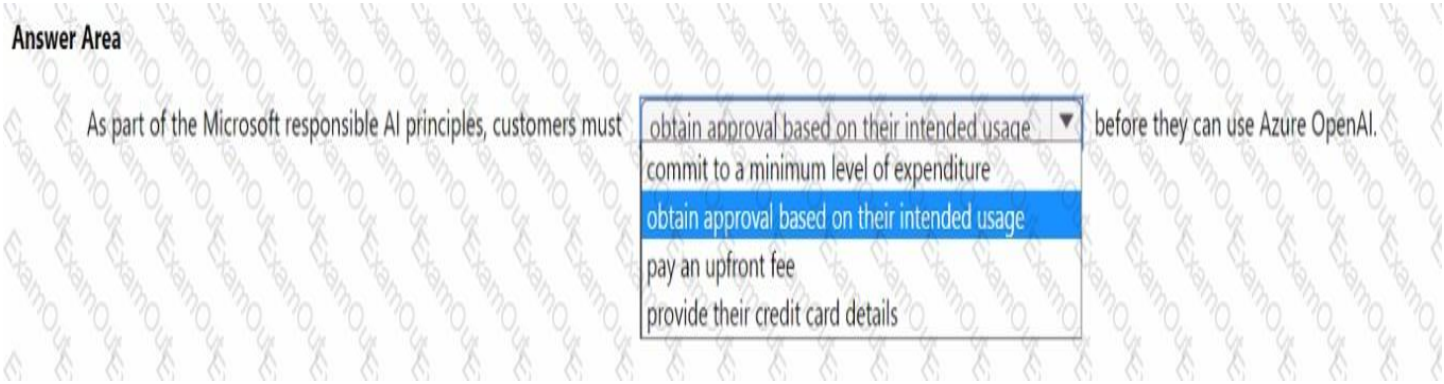
C. knowledge mining

D. natural language processing

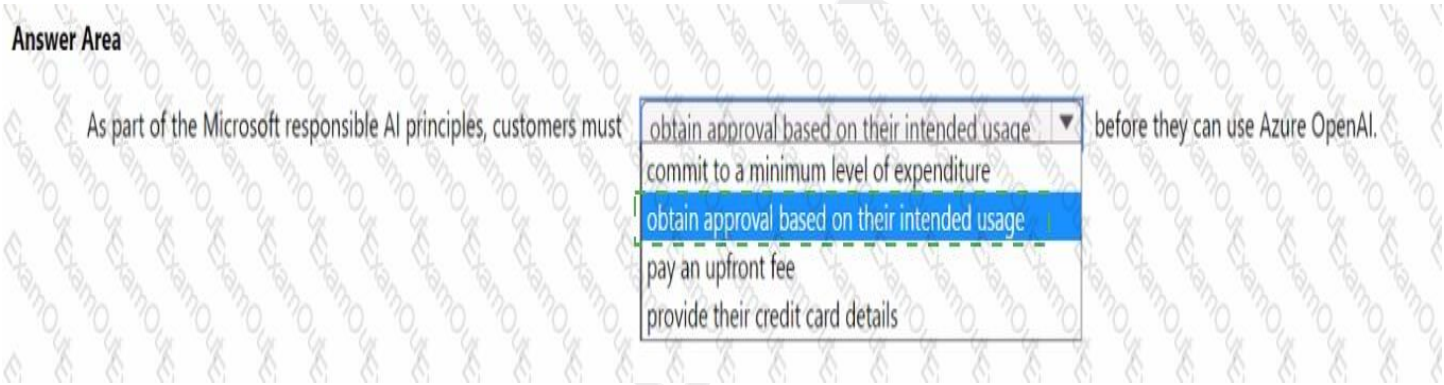
Answer: C

Question #:113 - (Exam Topic 5)

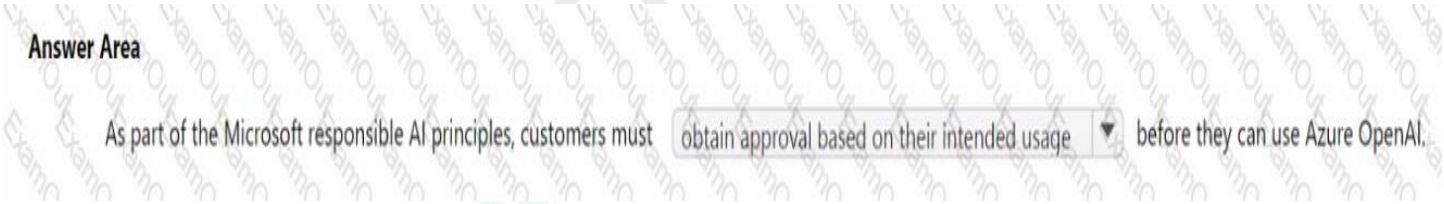
Select the answer that correctly completes the sentence.



Answer:



Explanation



Question #:114 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

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:

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.	○	○

Explanation

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.	○	○

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

QnA maker conversational AI service and has **nothing to do with SQL database**

You can easily create a user support bot solution on Microsoft Azure using a combination of two core technologies:

- **QnA Maker**. This cognitive service enables you to create and publish a knowledge base with built-in natural language processing capabilities.

- **Azure Bot Service**. This service provides a framework for developing, publishing, and managing bots on Azure.

https://docs.microsoft.com/en-us/learn/modules/build-faq-chatbot-qna-maker-azure-bot-service/2-get-started-qn

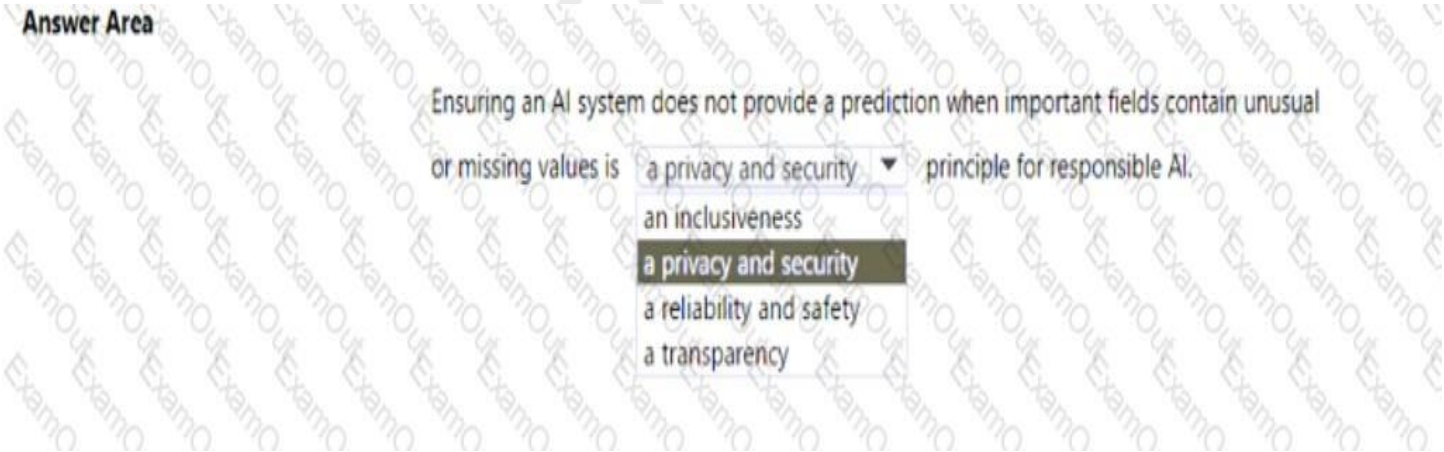
LUIS is used to understand user intent from utterances.

Creating a language understanding application with Language Understanding consists of two main tasks. First you must define entities, intents, and utterances with which to train the language model - referred to as *authoring* the model. Then you must publish the model so that client applications can use it for intent and entity *prediction* based on user input.

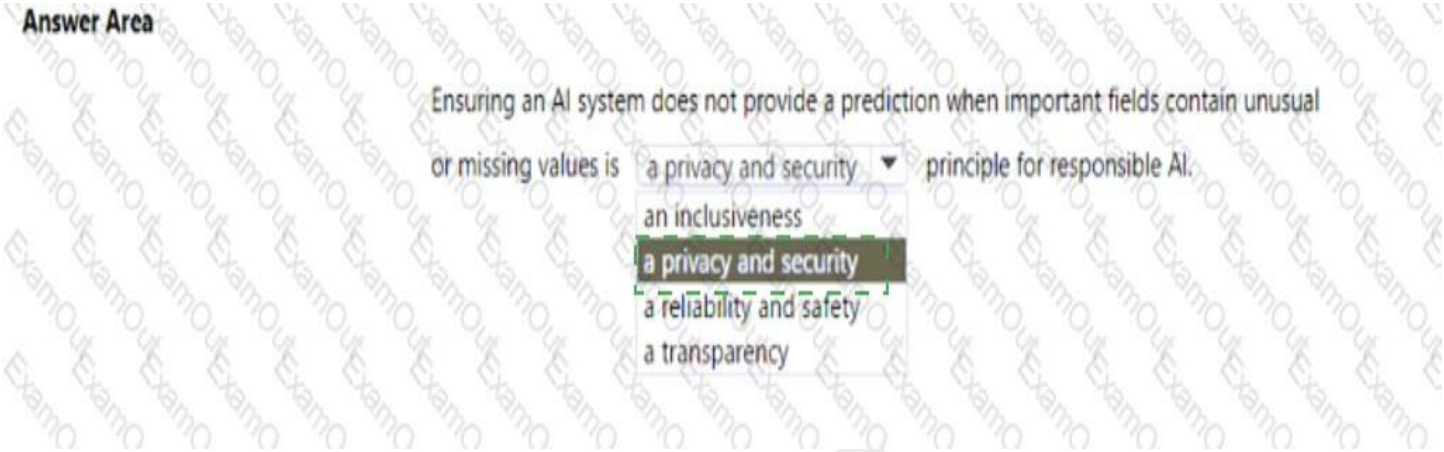
https://docs.microsoft.com/en-us/azure/cognitive-services/luis/choose-natural-language-processing-service

Question #:115 - (Exam Topic 5)

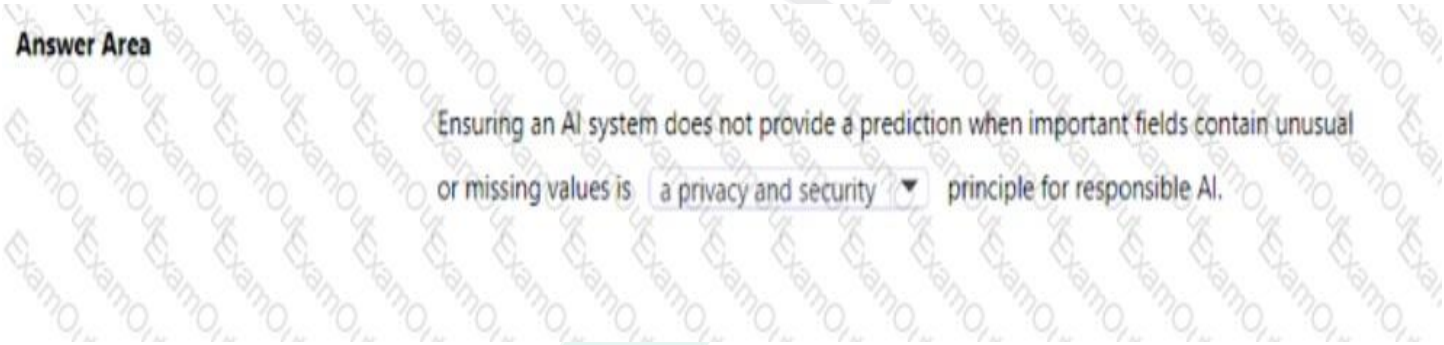
Select the answer that correctly completes the sentence



Answer:



Explanation



Question #:116 - (Exam Topic 5)

Match the principles of responsible AI to the appropriate descriptions.

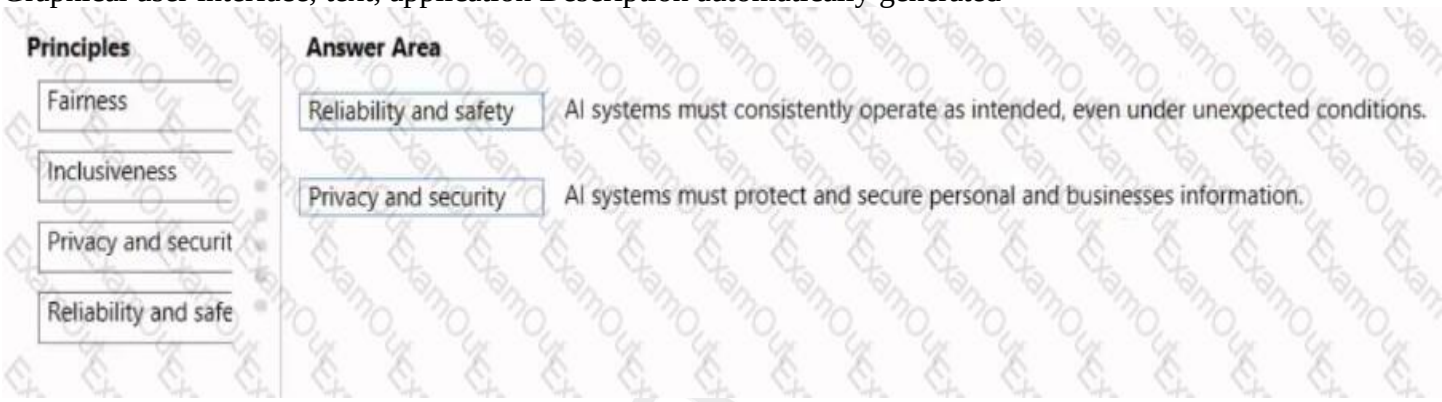
To answer, drag the appropriate principle from the column on the left to its description on the right. Each principle may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Answer:

Explanation

Graphical user interface, text, application Description automatically generated



Question #:117 - (Exam Topic 5)

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 user's geographical location.

Which type of natural language processing workload should you use?

A. translation

B. language modeling

C. key phrase extraction

D. speech recognition

Answer: C

Question #:118 - (Exam Topic 5)

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

A. Face

B. Custom Vision

C. Computer Vision

D. Form Recognizer

Answer: C

Question #:119 - (Exam Topic 5)

You have a natural language processing (NIP) model that was created by using data obtained without permission.

Which Microsoft principle for responsible Al does this breach?

A. privacy and security

B. inclusiveness

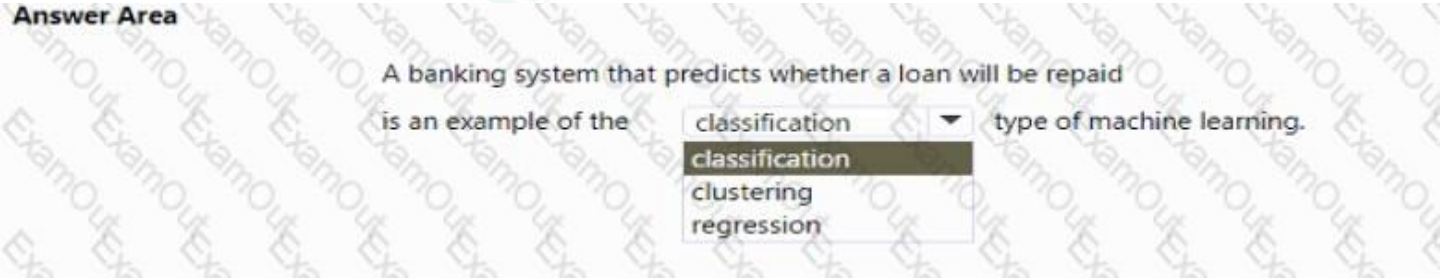
C. transparency

D. reliability and safety

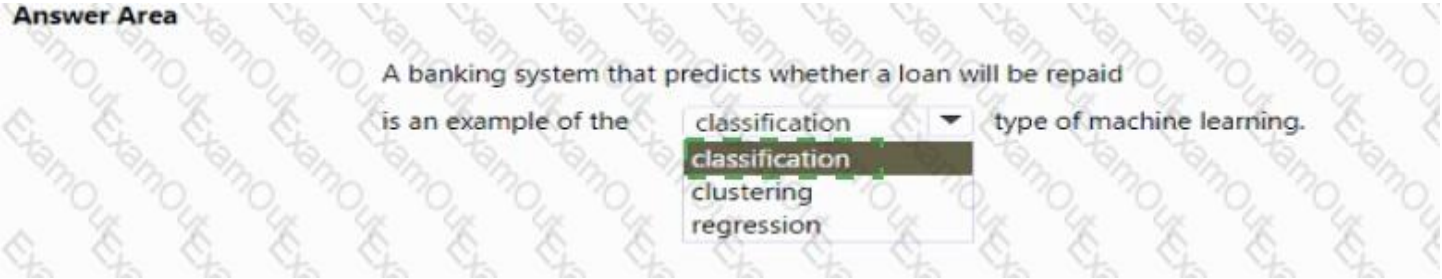
Answer: C

Question #:120 - (Exam Topic 5)

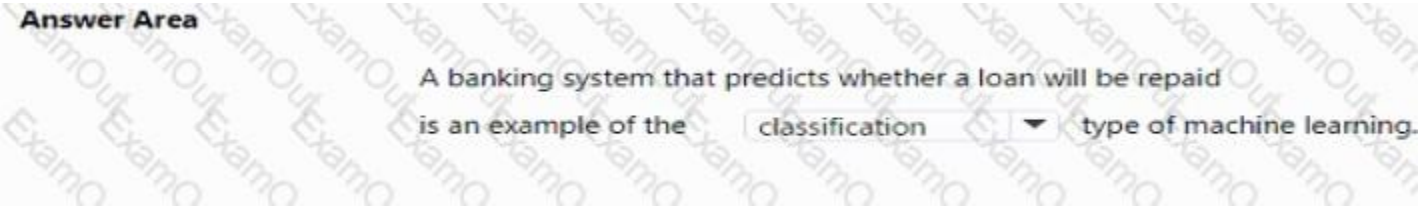
Select the answer that correctly completes the sentence.



Answer:



Explanation



Question #:121 - (Exam Topic 5)

You are building a tool that will process images from retail stores and identity the products of competitors.

The solution must be trained on images provided by your company.

Which Azure Al service should you use?

A. Azure Al Custom Vision

B. Azure Al Computer Vision

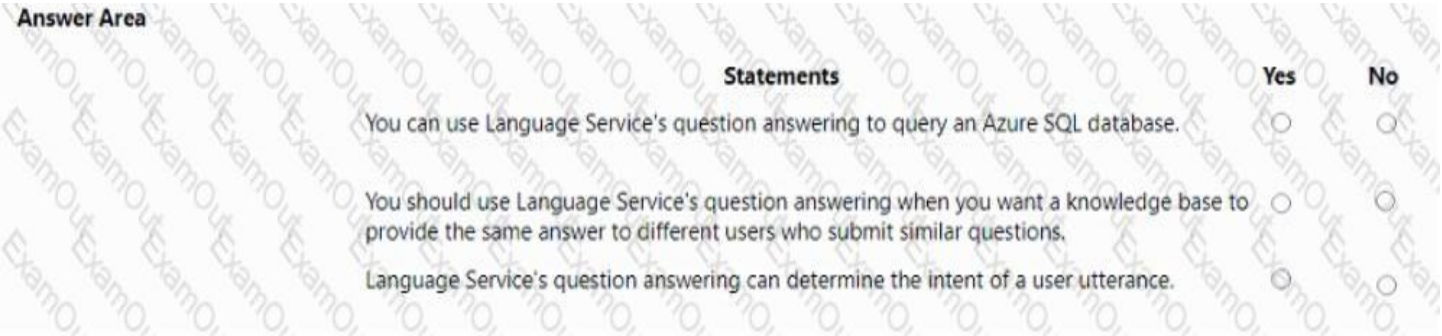
C. Face

D. Azure Al Document Intelligence

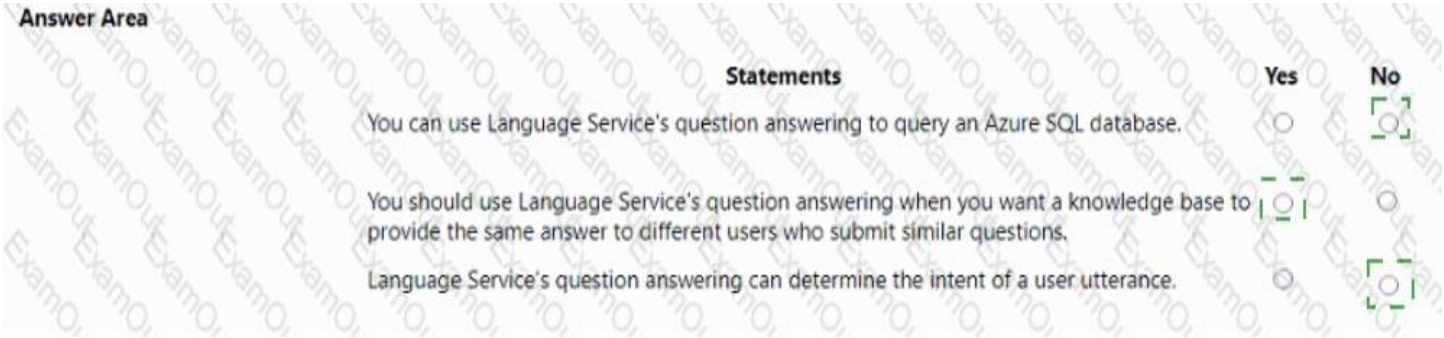
Answer: A

Question #:122 - (Exam Topic 5)

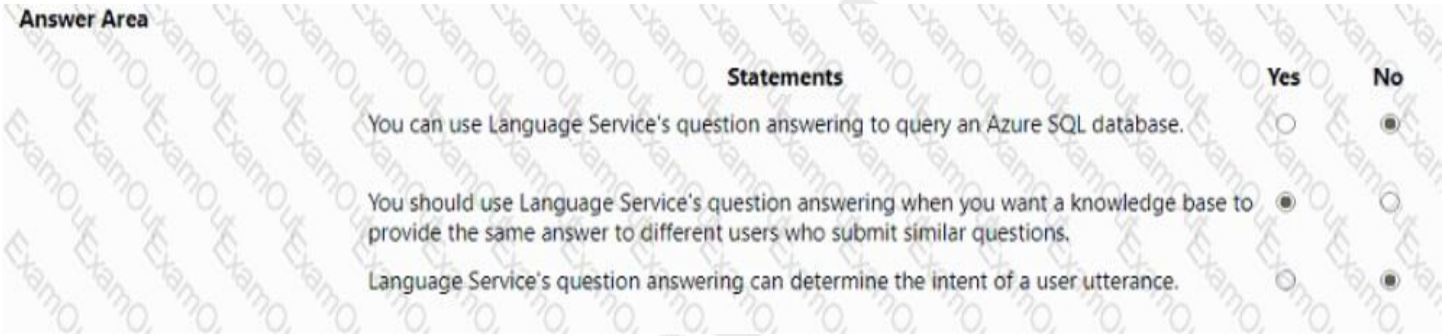
For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.



Answer:

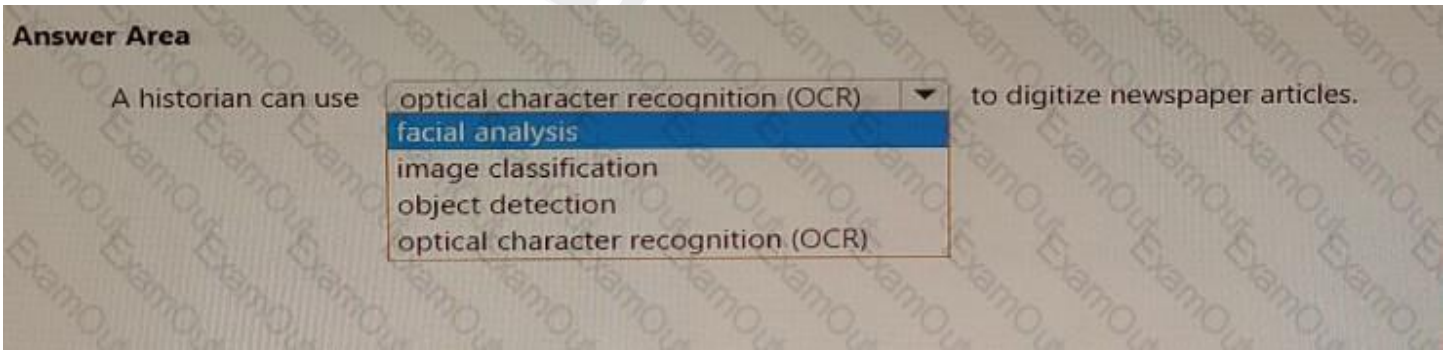


Explanation

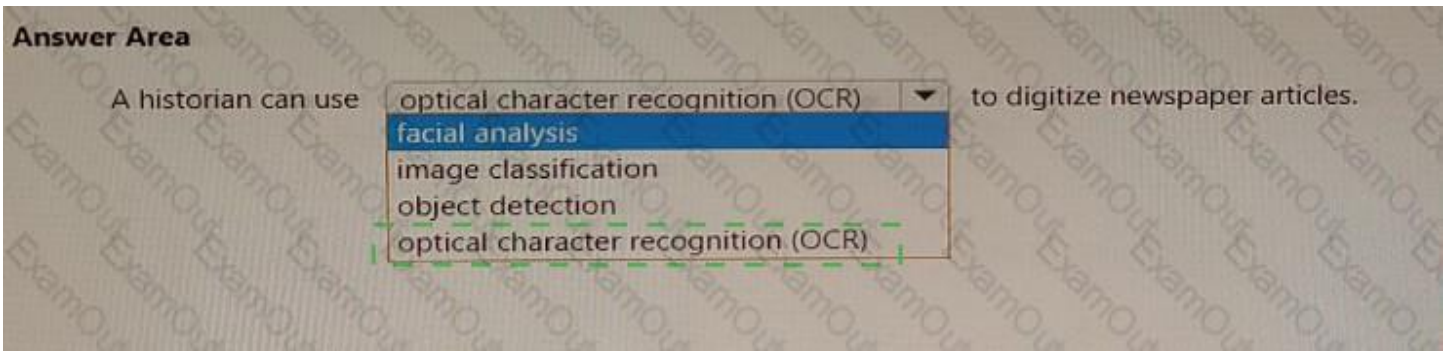


Question #:123 - (Exam Topic 5)

Select the answer that correctly completes the sentence.

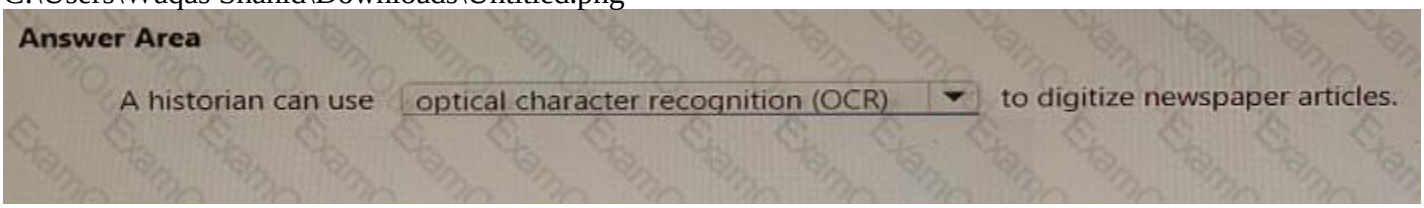


Answer:



Explanation

C:\Users\Waqas Shahid\Downloads\Untitled.png

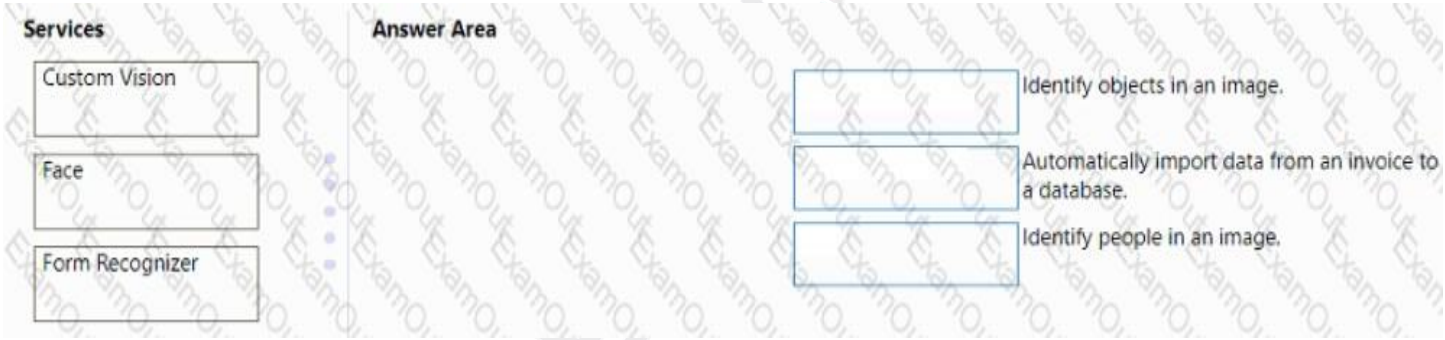


Question #:124 - (Exam Topic 5)

Match the Azure Cognitive Services to the appropriate Al workloads.

To answer, drag the appropriate service from the column on the left to its workload on the right. Each service may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.



Answer:

Explanation

Question #:125 - (Exam Topic 5)

Select the .

Answer:

Explanation

Question #:126 - (Exam Topic 5)

Match the services to the appropriate descriptions.

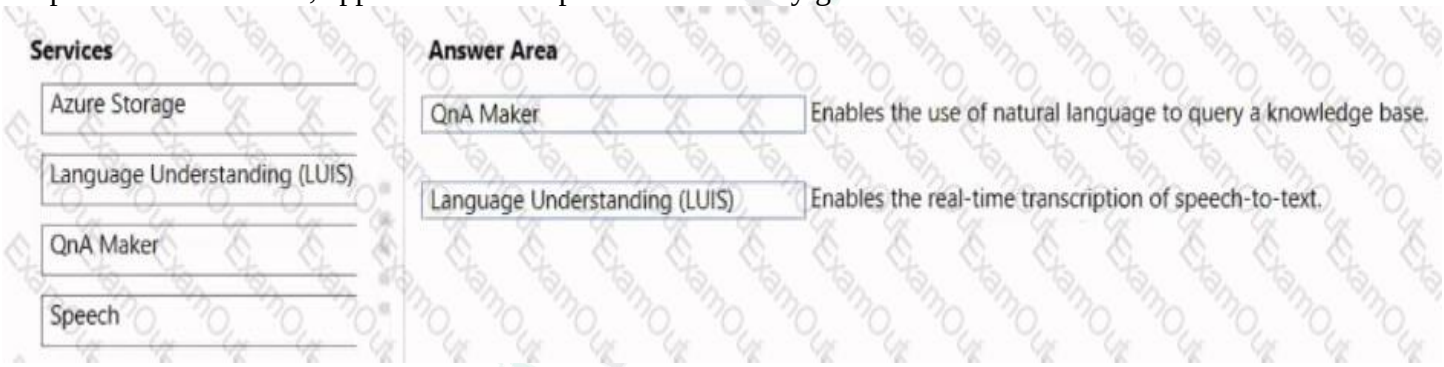
To answer, drag the appropriate service from the column on the left to its description on the right. Each service may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point

Answer:

Explanation

Graphical user interface, application Description automatically generated.



Question #:127 - (Exam Topic 5)

What are three stages in a transformer model? Each correct answer presents a complete solution.

NOTE: Each correct answer is worth one point.

A. object detection

B. embedding calculation

C. tokenization

D. next token prediction

E. anonymization

Answer: B C D

Question #:128 - (Exam Topic 5)

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

Answer: B

Question #:129 - (Exam Topic 5)

You need to develop a chatbot for a website. The chatbot must answer users questions based on the information m the following documents

• A product troubleshooting guide m a Microsoft Word document

• A frequently asked questions (FAQ) list on a webpage

Which service should you use to process the documents?

A. Language Undemanding

B. Text Analytics

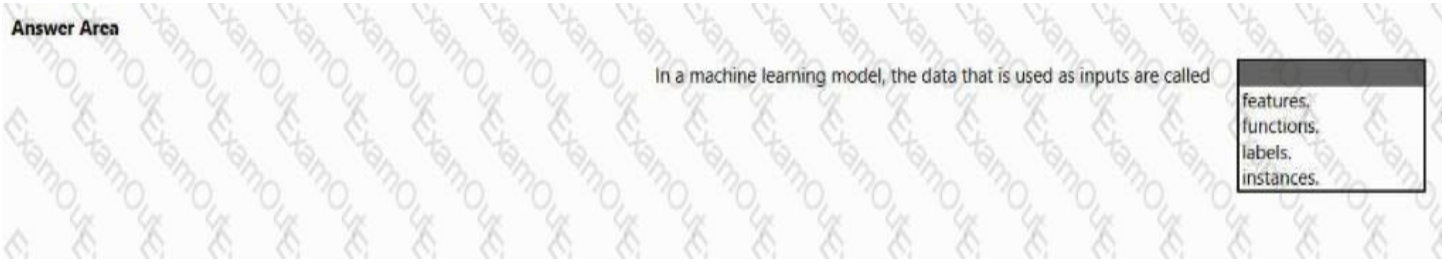
C. Azure Bot Service

D. QnA Maker

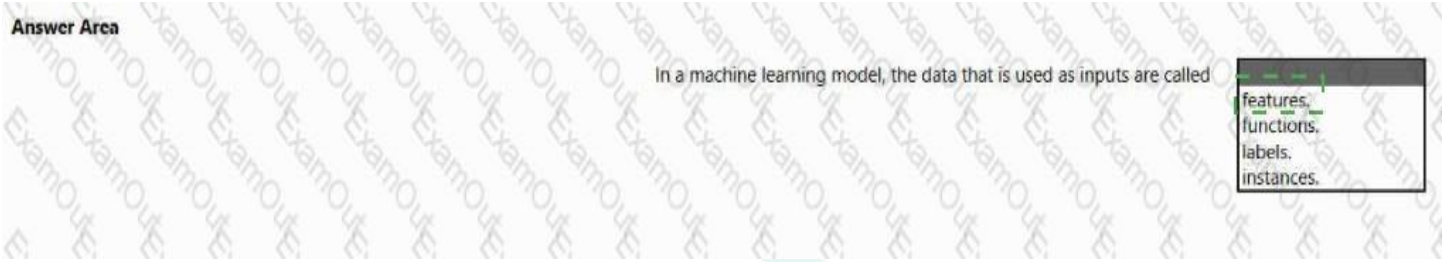
Answer: D

Question #:130 - (Exam Topic 5)

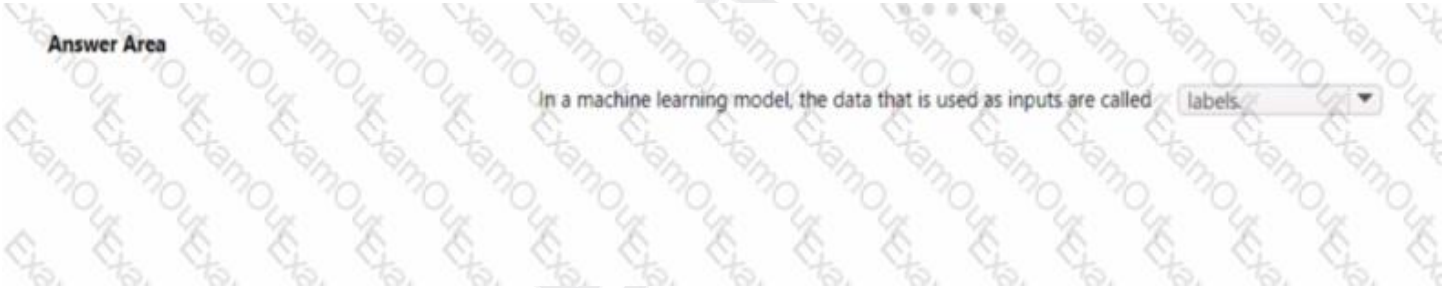
correctly completes the sentence.



Answer:

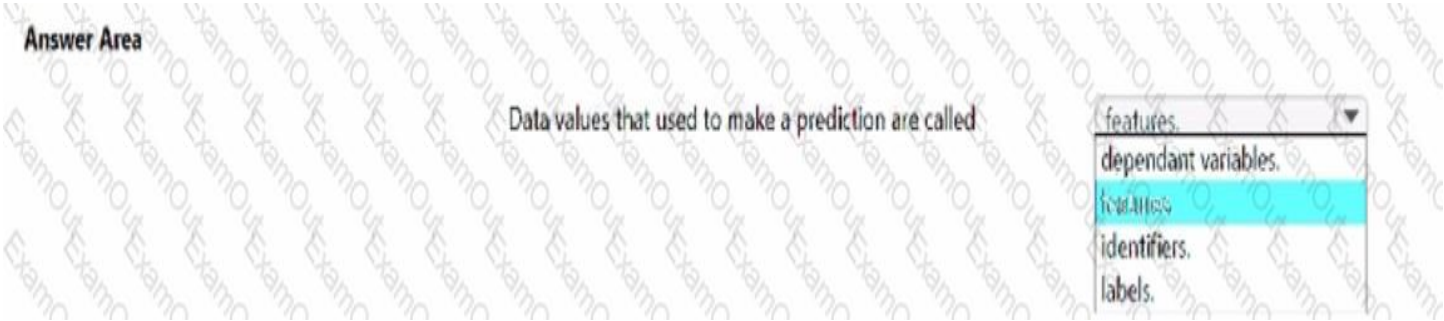


Explanation

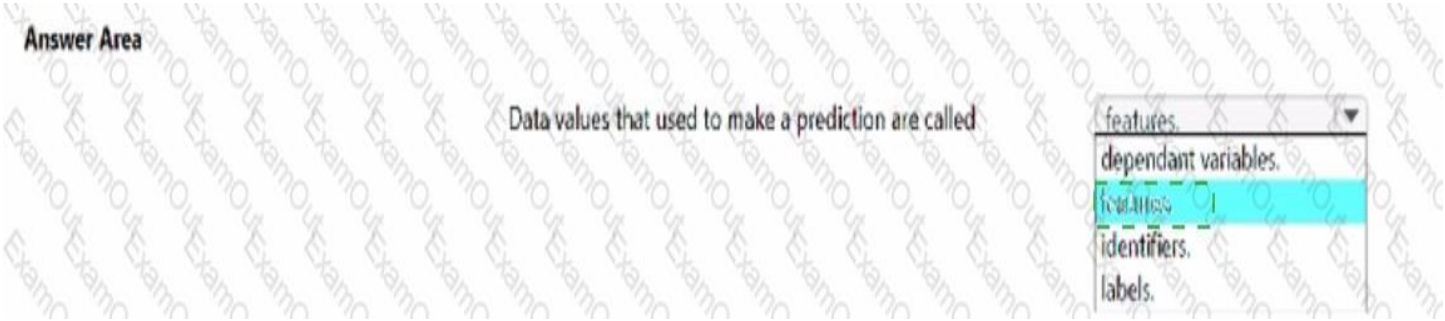


Question #:131 - (Exam Topic 5)

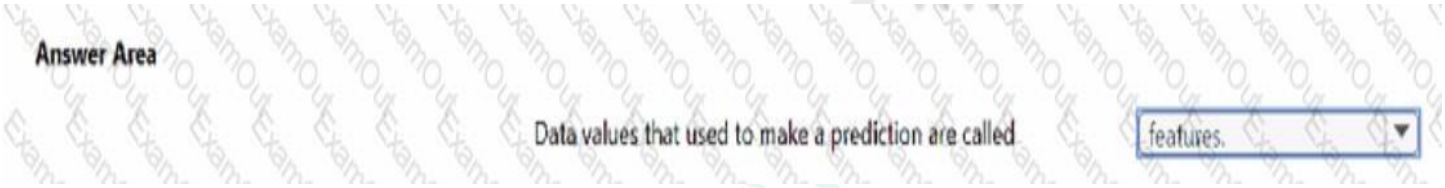
To complete the sentence, select the appropriate option in the answer area.



Answer:



Explanation



Question #:132 - (Exam Topic 5)

You have an Internet of Things (loT) device that monitors engine temperature.

The device generates an alert if the engine temperature deviates from expected norms.

Which type of Al workload does the device represent?

A. natural language processing (NLP)

B. computer vision

C. anomaly detection

D. knowledge mining

Answer: C

Question #:133 - (Exam Topic 5)

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

Answer: B C

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 #:134 - (Exam Topic 5)

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

Answer: C

Question #:135 - (Exam Topic 5)

You are building a chatbot that will use natural language processing (NLP) to perform the following actions based on the text input of a user:

• Accept customer orders.

• Retrieve support documents.

• Retrieve order status updates.

Which type of NLP should you use?

A. sentiment analysis

B. translation

C. language modeling

D. named entity recognition

Answer: D

Question #:136 - (Exam Topic 5)

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

NOTE: Each correct selection is worth one point.

Statements	Yes	No
Providing an explanation of the outcome of a credit loan application is an example of the Microsoft transparency principle for responsible AI.	○	○
A triage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety principle for responsible AI.	○	○
An AI solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible AI.	○	○

Answer:

Statements	Yes	No
Providing an explanation of the outcome of a credit loan application is an example of the Microsoft transparency principle for responsible AI.	○	○
A triage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety principle for responsible AI.	○	○
An AI solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible AI.	○	○

Explanation

Graphical user interface, text, application, email Description automatically generated

Statements	Yes	No
Providing an explanation of the outcome of a credit loan application is an example of the Microsoft transparency principle for responsible AI.	●	○
A triage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety principle for responsible AI.	○	●
An AI solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible AI.	●	○

Question #:137 - (Exam Topic 5)

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. scene segmentation

B. optical character recognition (OCR)

C. object detection

Answer: C

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.

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-over