ATMIC NETWORKS
YOUR GUIDE TO GLOBAL CERTIFIATION

"Please note that these files may not be up to date. However, the questions will help you understand the exam format and typical question patterns."

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Warning: Keep connected with our support team for latest updates

Question: 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

Explanation:

Question: 2

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:

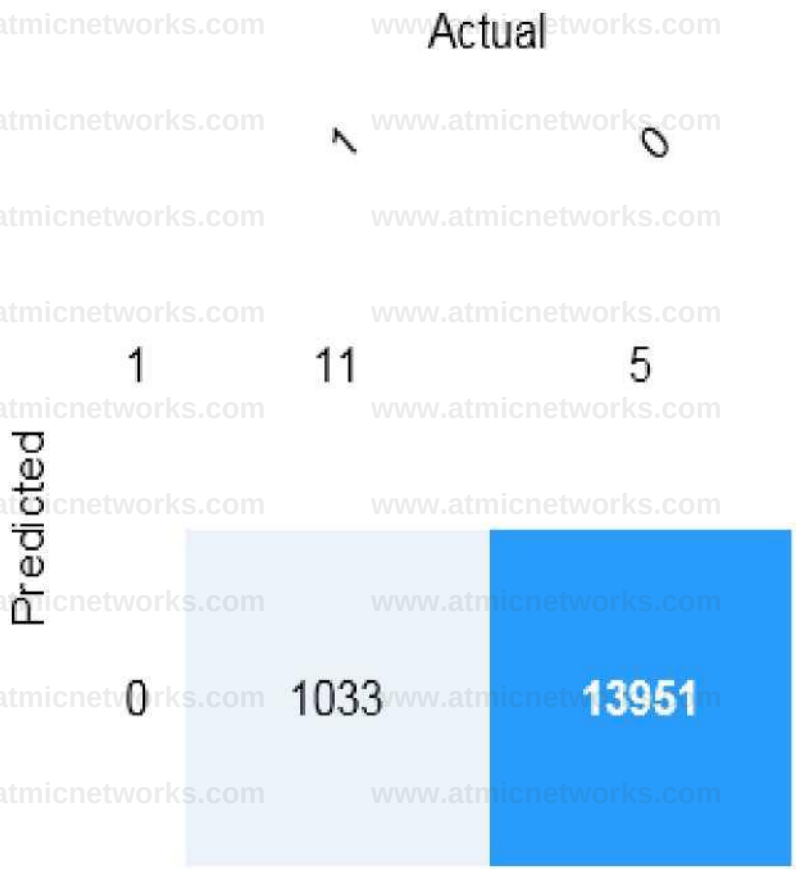
https://docs.microsoft.com/en-us/azure/machine-learning/algorithm-module-reference/split-data

Question: 3

HOTSPOT

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

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



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

NOTE: Each correct selection is worth one point.

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

Answer:

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/evaluate-model

Question: 4

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-service/

Question: 5

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 Area

Statements	Yes	No
Forecasting housing prices based on historical data is an example of anomaly detection.	O	0
Identifying suspicious sign-ins by looking for deviations from usual patterns is an example of anomaly detection.	o	O
Predicting whether a patient will develop diabetes based on the patient's medical history is an example of anomaly detection.	O	0

Answer:

Explanation:

Answer Area

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

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: 6
HOTSPOT

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

Answer Area

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

inclusiveness
privacy and security
reliability and safety
transparency

Answer:

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"

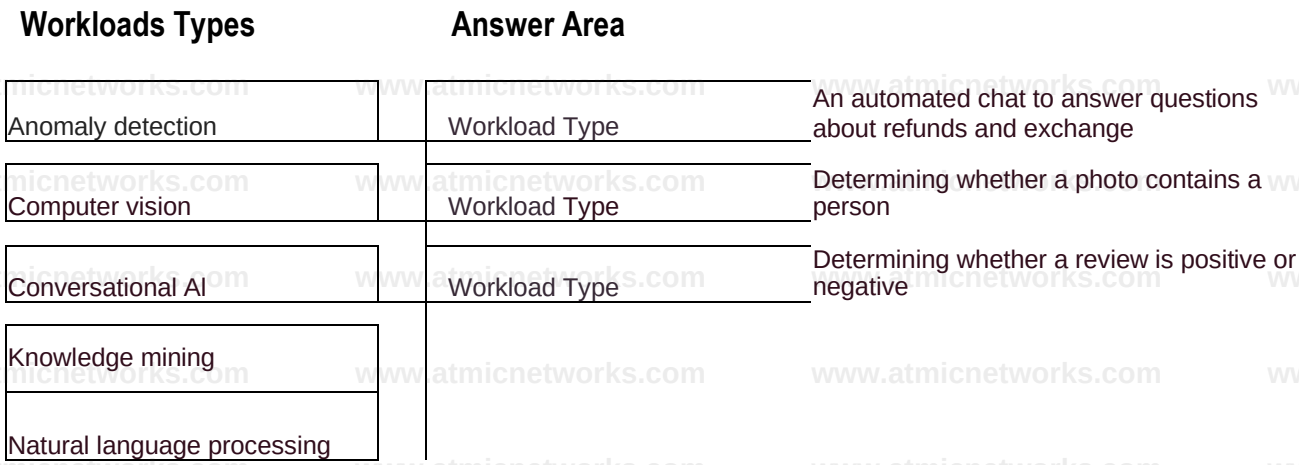
Question: 7

DRAG DROP

Match the types of AI workloads to the appropriate scenarios.

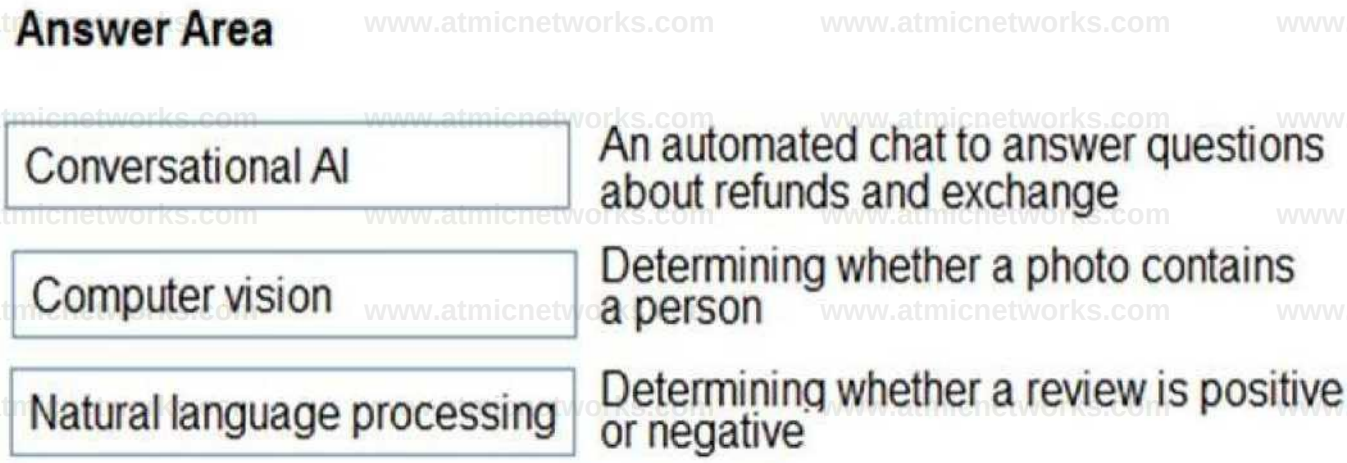
To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.

NOTE: Each correct selection is worth one point.



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: 8

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

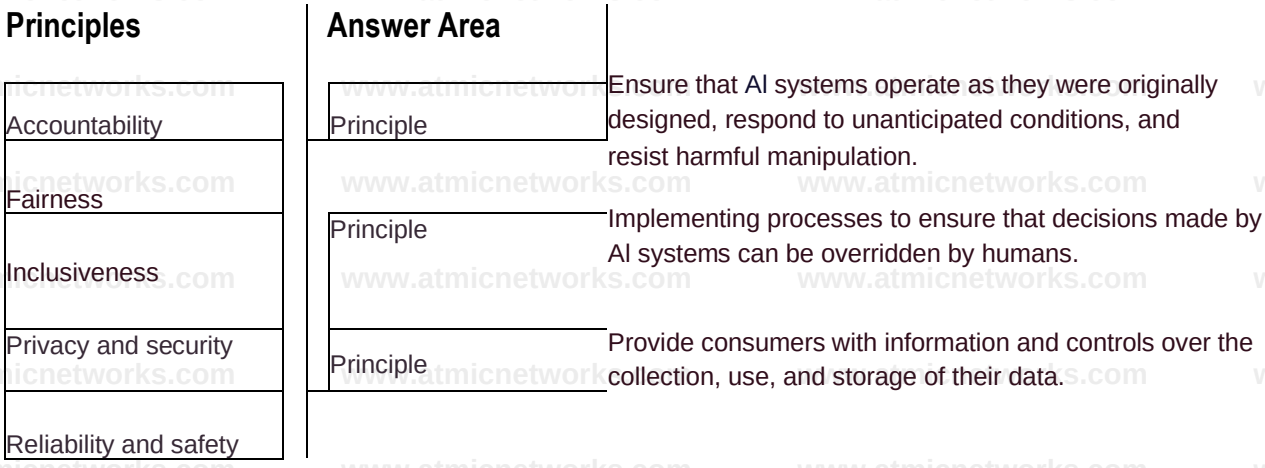
Question: 9

DRAG DROP

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

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

NOTE: Each correct selection is worth one point.



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: 10

HOTSPOT

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

When developing an AI system for self-driving cars, the Microsoft for principle responsible AI should be applied to ensure consistent operation system of the during unexpected circumstances.

inclusiveness
accountability
rekabikty and safety
fairness

Answer:

Explanation:

When developing an AI system for self-driving cars, the Microsoft for principle responsible AI should be applied to ensure consistent operation system of the during unexpected circumstances.

inclusiveness
accountability

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

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

Explanation:

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

Question: 12

DRAG DROP

Match the types of AI workloads to the appropriate scenarios.

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

NOTE: Each correct selection is worth one point.

Answer:

Explanation:

Workload Types	Answer Area	
Anomaly detection	Computer vision	Identify handwritten letters
Computer vision	Natural language processing	Predict the sentiment of a social media post.
Machine Learning (Regression)	Anomaly detection	Identify a fraudulent credit card payment
Natural language processing	Machine Learning (Regression)	Predict next month's toy sales.

Workload Types	Answer Area	
Anomaly detection	Workload Type	Identify handwritten letters.
Computer vision	Workload Type	Predict the sentiment of a social media post.
Machine Learning (Regression)	Workload Type	Identify a fraudulent credit card payment.
Natural language processing	Workload Type	Predict next month's toy sales

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

Question: 13

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

Explanation:

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: 14

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

Explanation:

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

Question: 15

HOTSPOT

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:

Explanation:

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.

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

Question: 16

HOTSPOT

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

Answer Area

▼ is used to generate additional features.

Feature engineering
Feature selection
Model evaluation
Model training

Answer:

Explanation:

Answer Area

▼ is used to generate additional features.

Feature engineering
Feature selection
Model evaluation
Model training

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

Question: 17

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

Explanation:

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

Question: 18

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: 19

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
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 tnage bot that prioritizes insurance claims based on injuries is an example of the Microsoft reliability and safety pnnciple for responsible Al	O	O
An Al solution that is offered at different prices for different sales territories is an example of the Microsoft inclusiveness principle for responsible Al	O	O

Answer:

Explanation:

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

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: 20

DRAG DROP

Match the principles of responsible AI to appropriate requirements.

To answer, drag the appropriate principles from the column on the left to its requirement on the right. Each principle may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Principles	Answer Area
Fairness	The system must not discriminate based on gender, race
Privacy and security	Personal data must be visible only to approve
Reliability and safety	Automated decision-making processes must be recorded so that approved users can identify why a decision was made
Transparency	

Answer:

Explanation:

Fairness	The system must not discriminate based on gender, race
Privacy and security	Personal data must be visible only to approve
Transparency	Automated decision-making processes must be recorded so that approved users can identify why a decision was made

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

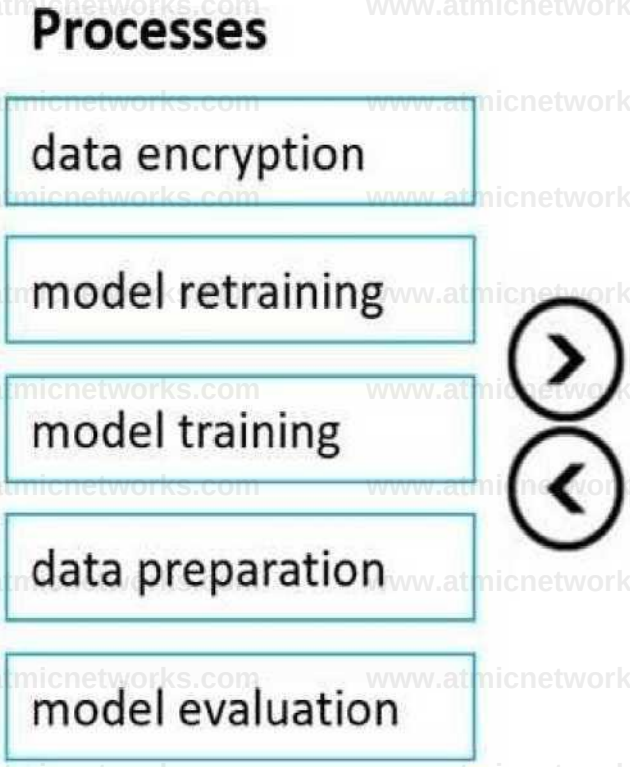
https://docs.microsoft.com/en-us/learn/modules/responsible-ai-principles/4-guiding-principles

Question: 21

DRAG DROP

You plan to deploy an Azure Machine Learning model as a service that will be used by client applications.

Which three processes should you perform in sequence before you deploy the model? To answer, move the appropriate processes from the list of processes to the answer area and arrange them in the correct order.



Answer:

Explanation:

data preparation

model training

model evaluation

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

Question: 22

You are building an AI-based app.

You need to ensure that the app uses the principles for responsible AI.

Which two principles should you follow? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

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

Answer: BC

Explanation:

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

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

Question: 23

HOTSPOT

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

According to Microsoft's [ ] principle of responsible AI,

accountability fairness
inclusiveness
transparency

AI systems should NOT reflect biases from the data sets that are used to train the systems.

Answer:

Explanation:

According to Microsoft's [▼] principle of responsible AI,

accountability
fairness
inclusiveness
transparency

AI systems should NOT reflect biases from the data sets that are used to train the systems.

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: 24

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: 25

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: 26

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

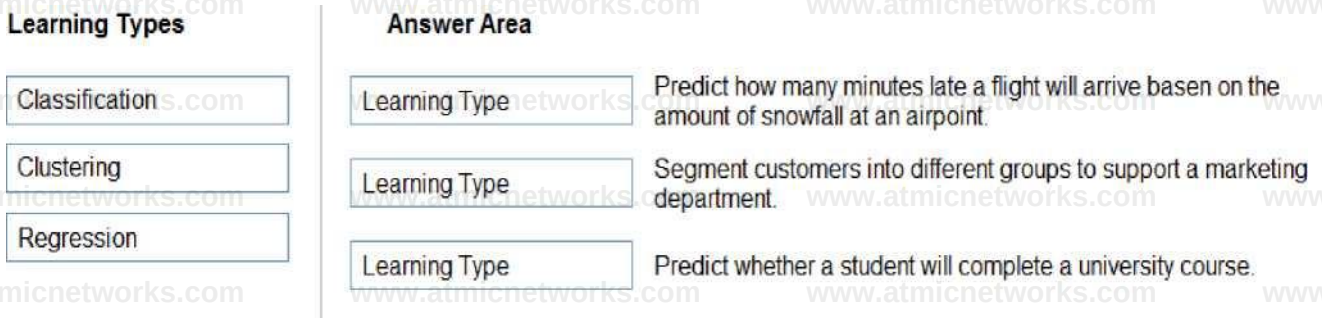
Question: 27

DRAG DROP

Match the types of machine learning to the appropriate scenarios.

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

NOTE: Each correct selection is worth one point.



Answer:

Explanation:

1- Regression
2- Clustering
3- Classification

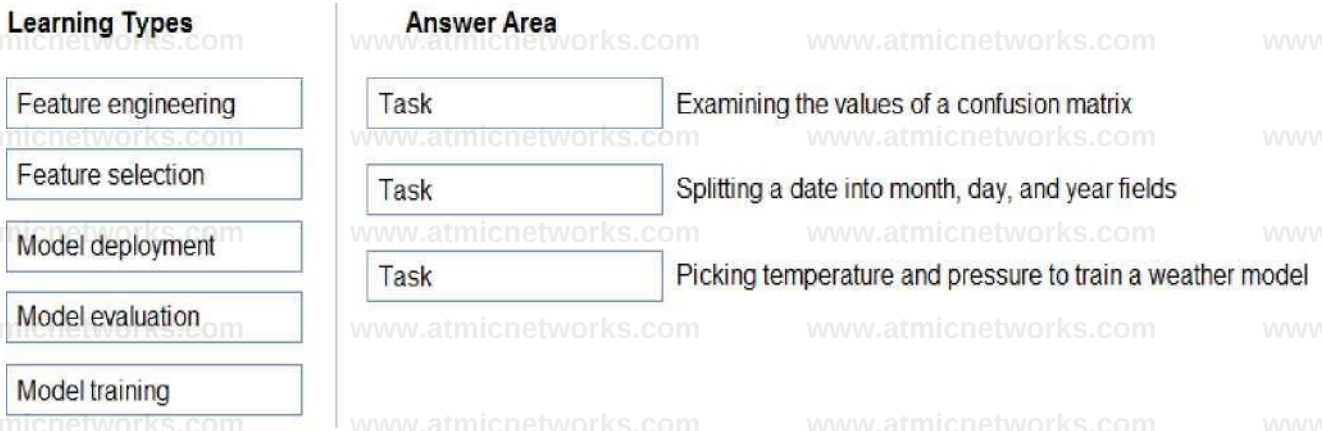
Question: 28

DRAG DROP

Match the machine learning tasks to the appropriate scenarios.

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

NOTE: Each correct selection is worth one point.



Answer:

Explanation:

Answer Area

Model evaluation	Examining the values of a confusion matrix
Feature engineering	Splitting a date into month, day, and year fields
Feature selection	Picking temperature and pressure to train a weather model

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: 29

HOTSPOT

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.

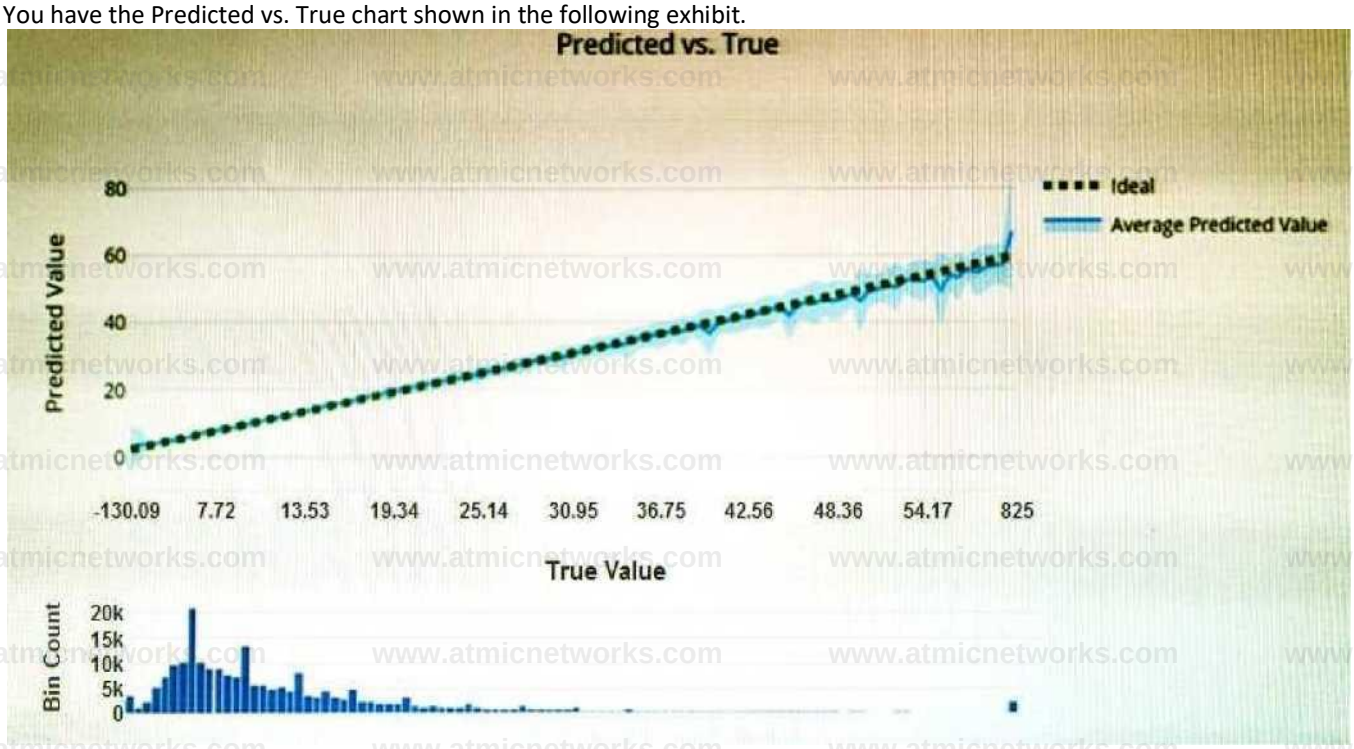
Answer:

Explanation:

Features

Question: 30

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: 31

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

Explanation:

Question: 32

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

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/introduction

Question: 34

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 Area

Statements	Yes	No
Automated machine learning is the process of automating the time-consuming, iterative tasks of machine learning model development.	O	O
Automated machine learning can automatically infer the training data from the use case provided.	o	O
Automated machine learning works by running multiple training iterations that are scored and ranked by the metrics you specify.	Q	Q

Automated machine learning enables you to specify a dataset and will automatically understand which label to predict.	O	O

Answer:

Explanation:

Answer Area

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

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 dat a. 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: 35

HOTSPOT

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 v type of machine learning.

cllassifi cation

regression

clustering

Answer:

Explanation:

Classification

Question: 36

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 Area

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

Answer:

Explanation:

Answer Area

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

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: 37

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 onpremises 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: 38

HOTSPOT

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:

Explanation:

Answer Area

The ability to extract subtotals and totals from a receipt is a capability of the service
Custom Vision FormRecognizerJ
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 onpremises 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: 39

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/deploy-service

Question: 40

HOTSPOT

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:

Explanation:

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

{ Azu!^<uberSesServke^AKS)J

Azure Machine Learning compute

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: 41
HOTSPOT

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:

Explanation:

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

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-model-clustering

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/introduction

Question: 42
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 Area

Statements	Yes	No
Azure Machine Learning designer provides a drag-and-drop visual canvas to build, test, and deploy machine learning models.	O	O
Azure Machine Learning designer enables you to save your progress as a pipeline draft.	O	0
Azure Machine Learning designer enables you to include custom JavaScript functions.	O	0

Answer:

Explanation:

Answer Area

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

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: 43

HOTSPOT

You have the following dataset.

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

You plan to use the dataset to train a model that will predict the house price categories of houses.

What are Household Income and House Price Category? To answer, select the appropriate option in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Household Income:

A feature

A label

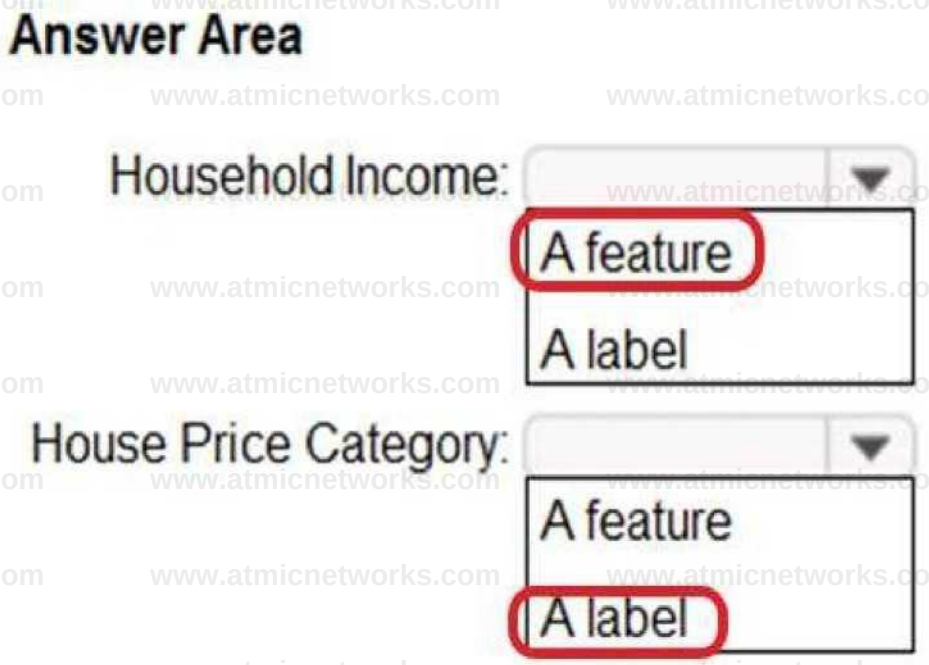
House Price Category:

A feature

A label

Answer:

Explanation:



Box 1: A feature

Box 2: A label

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

Question: 44

HOTSPOT

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.

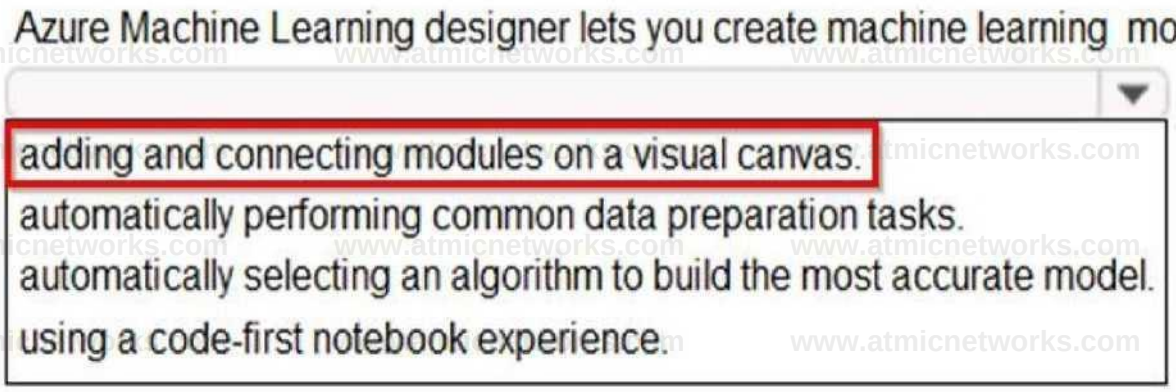
automatically selecting an algorithm to build the most accurate model using a code-

first notebook experience.

Answer:

Explanation:

Answer Area



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

Question: 45

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 Area

Statements	Yes	No
Automated machine learning provides you with the ability to include Q custom Python scripts in a training pipeline.	0	
Automated machine learning implements machine learning solutions o without the need for programming experience.	0	
Automated machine learning provides you with the ability to visually O connect datasets and modules on an interactive canvas.	0	

Answer:

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: 46

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

Explanation:

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

Question: 47

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%20data.

Question: 48

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: 49

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: 50

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

Explanation:

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

Question: 51

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
Organizing documents into groups based on similarities of the text contained in the documents is an example of clustering	0	0
Grouping similar patients based on symptoms and diagnostic test results is an example of clustering	Q	Q
Predicting whether a person will develop mild, moderate, or severe allergy symptoms based on pollen count is an example of clustering.	0	0

Answer:

Explanation:

Statements	Yes	No
Organizing documents into groups based on similarities of the text contained in the documents is an example of clustering	0	
Grouping similar patients based on symptoms and diagnostic test results is an example of clustering	0	
Predicting whether a person will develop mild, moderate, or severe 0 allergy symptoms based on pollen count is an example of clustenng	0	

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: 52
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
A validation set includes the set of input examples that will be used o to train a mode		O
A validation set can be used to determine how well a model O predicts labels		O
A validation set can be used to verify that all the training data was o used to train the model		O

Answer:

Explanation:

Statements	Yes	No
A validation set includes the set of input examples that will be used to train a mode	o	O

A validation set can be used to determine how well a model predicts labels.	O	O
A validation set can be used to verify that all the training data was used to train the model	o	

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: 53

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: AC

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: 54

HOTSPOT

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

Predicting how many vehicles will travel across a bridge on a given day is an example of ▼

classification.

clustering.

regression.

Answer:

Explanation:

Predicting how many vehicles will travel across a bridge on a given day is an example of ▼

classification.

clustering.

regression.

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

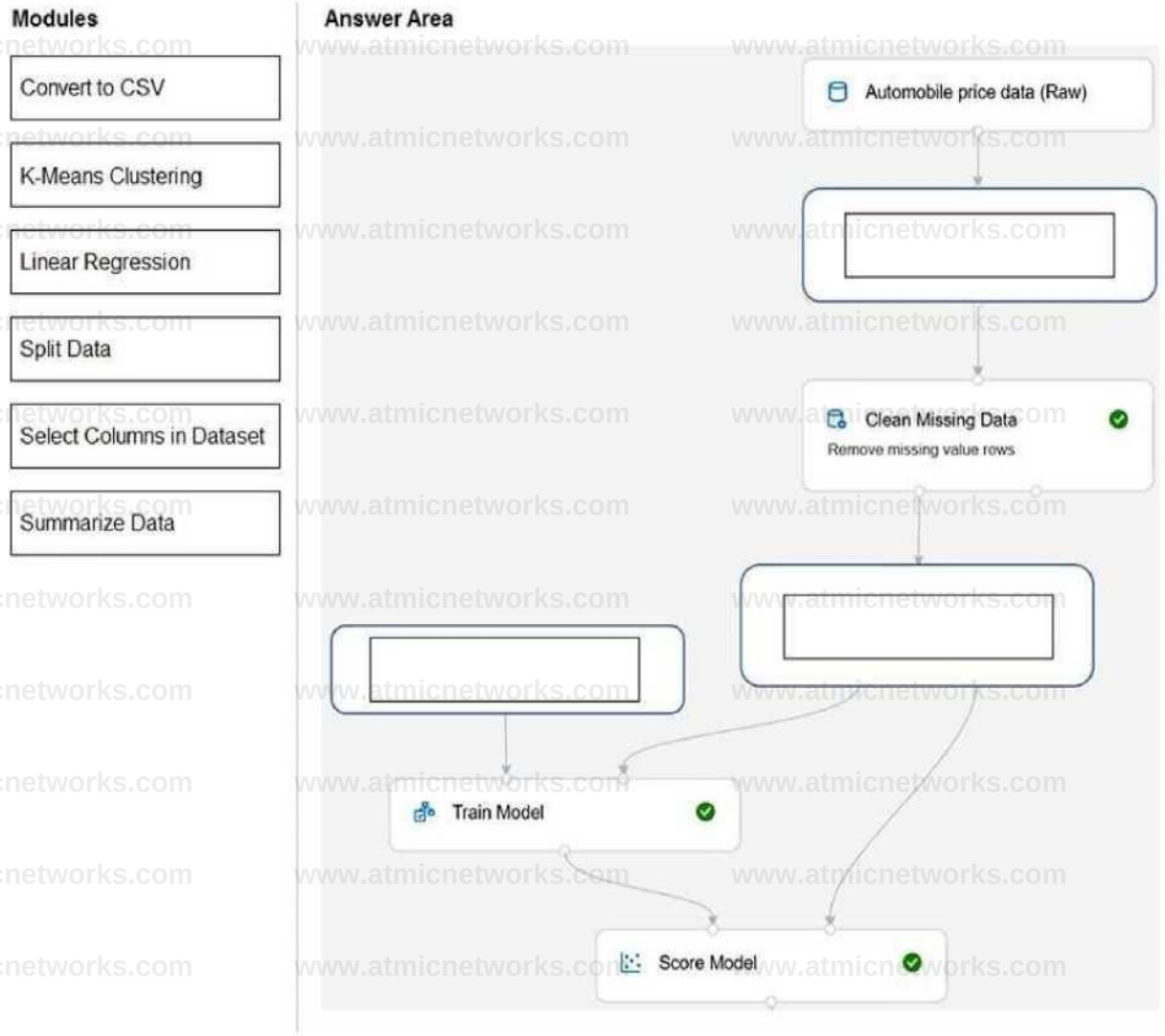
Question: 55

DRAG DROP

You need to use Azure Machine Learning designer to build a model that will predict automobile prices.

Which type of modules should you use to complete the model? To answer, drag the appropriate modules to the correct locations. Each module may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.



Answer:

Explanation:

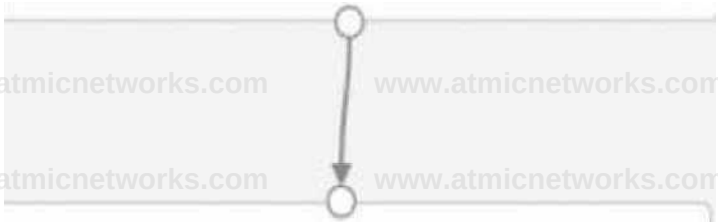
Box 1: Select Columns in Dataset

For Columns to be cleaned, choose the columns that contain the missing values you want to change.

You can choose multiple columns, but you must use the same replacement method in all selected columns.

Example:

0 Automobile price data (Raw)



ft Select Columns in Dataset

Exclude normalized losses

& Clean Missing Data

Remove missing value rows

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: 56

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: 57

HOTSPOT

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

▼ models can be used to predict the sale price of auctioned items Classification

Clustering

Regression

Answer:

Explanation:

▼ models can be used to predict the sale price of auctioned items

Classification

Clustering

Regression

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: 58

HOTSPOT

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

is the calculated probability of a correct image classification.

Accuracy

Confidence

Root Mean Square Error Sentiment

Answer:

Explanation:

is the calculated probability of a correct image classification.

Accuracy

Confidence

Root Mean Square Error Sentiment

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

Question: 59

HOTSPOT

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

Ensuring an AI system does not provide a prediction when important fields contain unusual or missing values is ▼ principle for responsible AI

an inclusiveness

a privacy and security

a reliability and safety
a transparency

Answer:

Explanation:

Ensuring an AI system does not provide a prediction when important fields contain unusual or missing values is ▼ principle for responsible AI.

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

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

Question: 60

HOTSPOT

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

Ensuring that the numeric variables in training data are on a similar scale is an example of

data ingestion, feature engineering, feature selection, model training.

Answer:

Explanation:

Ensuring that the numeric variables in training data are on a similar scale is an example of

data ingestion, feature engineering, feature selection, model training.

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

Question: 61

HOTSPOT

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

Assigning classes to images before training a classification model is an example of

evaluation.
feature engineering
hyperparameter tuning, labeling.

Answer:

Explanation:

Assigning classes to images before training a classification model is an example of

evaluation.
feature engineering hyperparameter tuning, labeling.

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

Topic 3, Describe features of computer vision workloads on Azure

Question: 62

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: 63

DRAG DROP

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.

Tasks	Answer Area	
grouping	Task	Do two images of a face belong to the same person?
identification	Task	Does this person look like other people?
similarity	Task	Do all the faces belong together?
verification	Task	Who is this person in this group of people?

Answer:

Explanation:

Answer Area

verification	Do two images of a face belong to the same person?
similarity	Does this person look like other people?
grouping	Do all the faces belong together'?
identification	Who is this person in this group of people?

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

Question: 64

DRAG DROP

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.

Workloads Types	Answer Area	
Facial recognition	Workload Type	Identify celebrities in images.
Image classification	Workload Type	Extract movie title names from movie poster images.
Object detection	Workload Type	Locate vehicles in images.
Optical character recognition (OCR)		

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: 65

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: 66

HOTSPOT

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

Answer Area

You can use the ▼ service to train an object detection model by using your own images. Computer Vision

Custom Vision

Form Recognizer

Video Indexer

Answer:

Explanation:

Answer Area

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

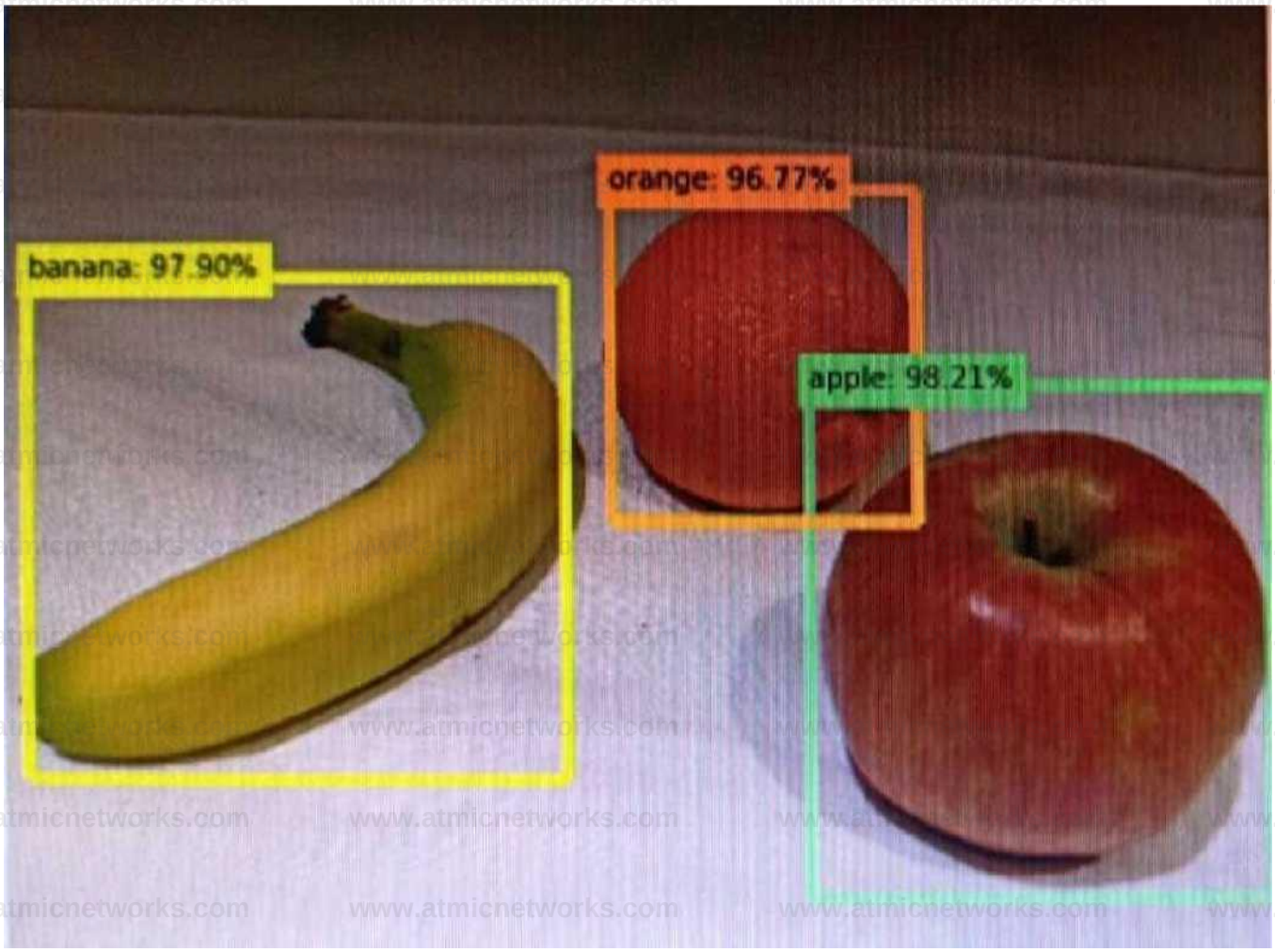
custom vision - This is a type of computer vision service which helps in building/training models using user provided data

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: 67

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: 68

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: 69

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

Explanation:

Question: 70

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

Explanation:

Question: 71

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: 72

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 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**	O	0
You can create an object detection model in the Custom Vision service to find the location of content within an image.	o O	
When creating an object detection model in the Custom Vision service, you can select from a set of predefined domains.	o 0	

Answer:

Explanation:

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**	O	
You can create an object detection model in the Custom Vision service to find the location of content within an image	|o| O	
When creating an object detection model in the Custom Vision service, you can select from a set of predefined domains.	|o| O	

Reference:

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

Question: 73

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

Explanation:

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

Question: 74

HOTSPOT

You have a database that contains a list of employees and their photos.

You are tagging new photos of the employees.

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

NOTE: Each correct selection is worth one point.

Answer Area

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

Answer:

Explanation:

Answer Area

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

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: 75

HOTSPOT

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

NOTE: Each correct selection is worth one point.

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

Answer:

Explanation:

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

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: 76

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

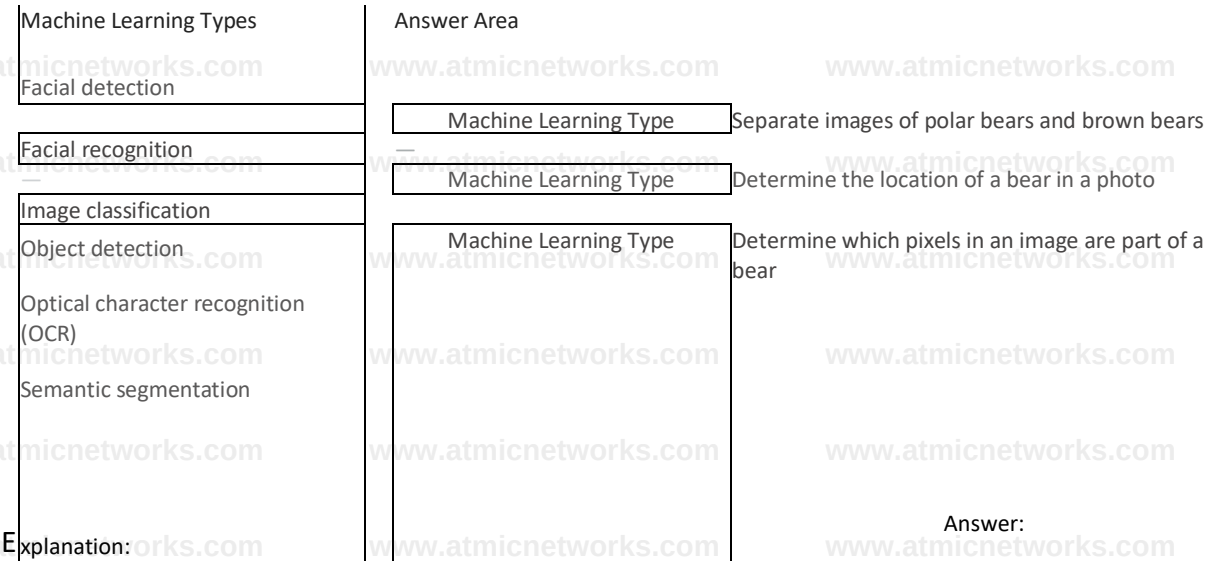
Question: 77

DRAG DROP

Match the types of machine learning to the appropriate scenarios.

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

NOTE: Each correct selection is worth one point.



Answer:

Explanation:

Image classification	Separate images of polar bears and brown bears.
Object detection	Determine the location of a bear in a photo.
Semantic segmentation	Determine which pixels in an image are part of a bear.

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: 78

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

Explanation:

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

Question: 79

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

Question: 80

HOTSPOT

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

Answer Area

Natural language processing can be used to

classify email messages as work-related or personal.

predict the number of future car rentals.

predict which website visitors will make a transaction.

stop a process in a factory when extremely high temperatures are registered

Answer:

Explanation:

Answer Area

Natural language processing can be used to

'classify email messages as work-related or personal. J

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: 81

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: 82

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: 83

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: 84

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 Area

Statements		Yes	No
The Text Analytics service	can identify in which language text is written.	O	O
The Text Analytics service	can detect handwritten signatures in a document.	O	O
The Text Analytics service	can identify companies and organizations mentioned in a document.	0	O

Answer:

Explanation:

Answer Area

Statements	Yes	No
The Text Analytics service can identify in which language text is written.	Q	o
The Text Analytics service can detect handwritten signatures in a document.	O	[01
The Text Analytics service can identify companies and organizations mentioned in a document.	^	O

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: 85

DRAG DROP

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.

Workloads Types

- Entity recognition
- Key phrase extraction
- Language modeling
- Sentiment analysis
- Natural language processing
- Translation
- Speech recognition and speech synthesis

Answer Area

Workload Type	Extracts persons, locations, and organizations from the text
Workload Type	Evaluates text along a positive-negative scale
Workload Type	Returns text translated to the specified target language

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: 86

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 Area

Statements	Yes	No
Monitoring online service reviews for profanities is an example of natural language processing.	O	0
Identifying brand logos in an image is an example of natural languages processing.	O	0
Monitoring public news sites for negative mentions of a product is an example of natural language processing.	O	0

Answer:

Explanation:

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.		

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: 87

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.

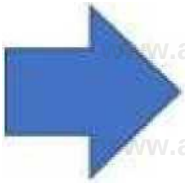
Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/technology-choices/natural- language-processing

Question: 88

You use natural language processing to process text from a Microsoft news story.

You receive the output shown in the following exhibit.

For weeks now, students and teachers have been settling into the uncharted routine of distance learning. Today I want to thank all of the educators who are connecting classrooms and classmates together in the sudden shift to remote learning. This change requires everyone working together and is unlike anything we've seen in the modem history of education. We've seen countries, school districts and universities move rapidly into remote learning environments with Microsoft Teams being used in 175 countries by 183,000 institutions.



now [DateTime] students [PersonType] teachers [PersonType] distance learning [Skill] Today [DateTime-Date] educators [PersonType] classrooms [Location] classmates [PersonType] remote learning [Skill] history [Skill] education [Skill] remote learning [Skill] Microsoft [Organization] 175 [Quantity-Number] 183,000 [Quantity-Number]

Which type of natural languages processing was performed?

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

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

Answer: A

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: 89

DRAG DROP

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

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

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

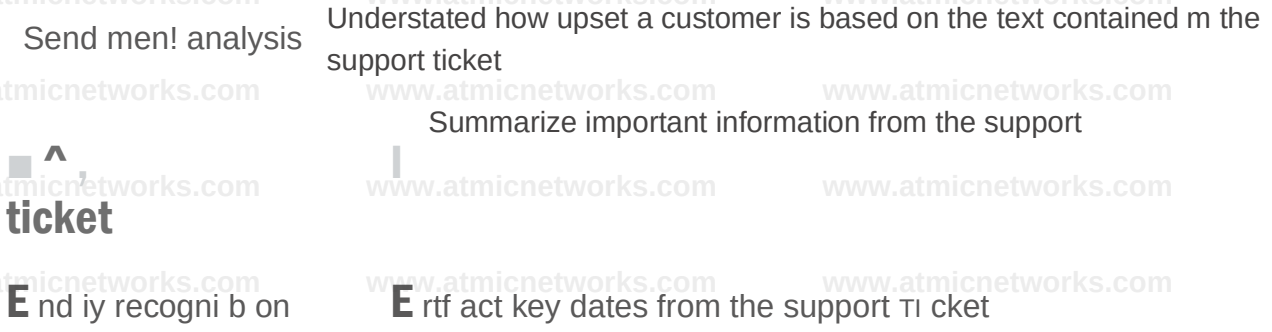
NOTE: Each correct selection is worth one point.

API Features	Answer Area	
Entity recognition	API Feature	Understand how upset a customer is based on the text contained in the support ticket.
Key phrase extraction	API Feature	Summarize important information from the support ticket
Language detection	API Feature	Extract key dates from the support ticket.
Sentiment analysis		

Answer:

Explanation:

Answer Area



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: 90

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: 91

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

Explanation:

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

Question: 92

HOTSPOT

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:

Explanation:

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.

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: 93

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

Explanation:

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

Question: 94

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 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	0

Answer:

Explanation:

Answer Area

Statements	Yes	No
You can use the Speech service to transcribe a call to text.	0	O
You can use the Text Analytics service to extract key entities from a call transcript.	Q	O
You can use the Speech service to translate the audio of a call to a different language.	|Q|	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: 95

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

Explanation:

Reference:

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

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

Question: 96

In which two scenarios can you use a speech synthesis solution? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

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

Answer: AD

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: 97

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 use the Translator service to translate text between languages	O	O
You can use the Translator service to detect the language of a given text.	O	O
You can use the Translator service to transcribe audible speech into text	O	O

Answer:

Explanation:

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

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

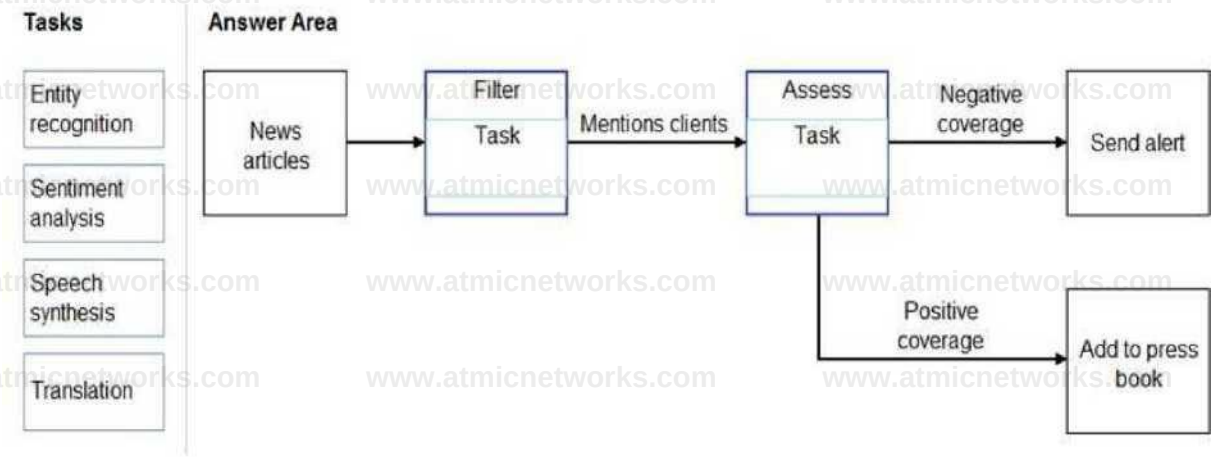
Question: 98

DRAG DROP

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

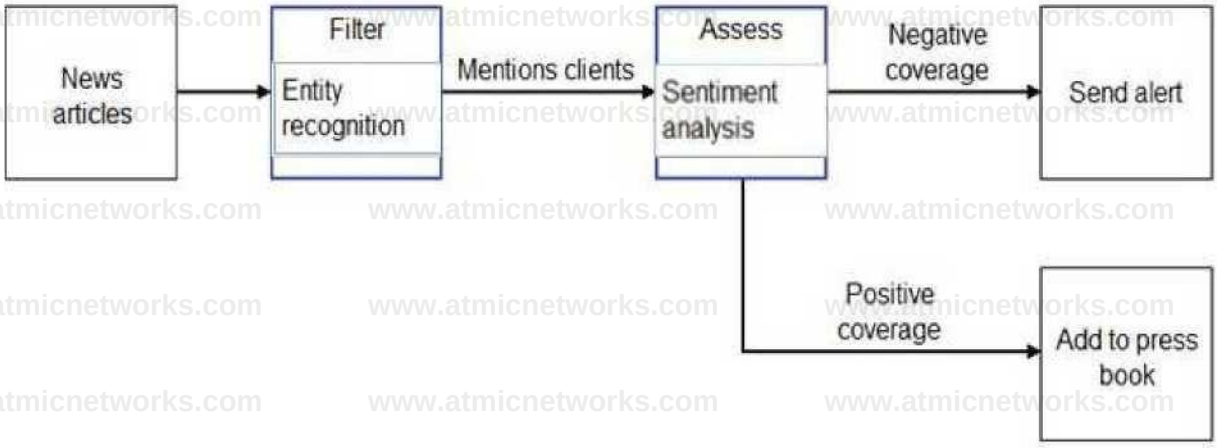
Which natural language processing tasks should you use to complete the process? To answer, drag the appropriate tasks to the correct locations. Each task may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.



Answer:

Explanation:



Box 1: Entity recognition

the Named Entity Recognition module in Machine Learning Studio (classic), to identify the names of things, such as people, companies, or locations in a column of text.

Named entity recognition is an important area of research in machine learning and natural language processing (NLP), because it can be used to answer many real-world questions, such as: Which companies were mentioned in a news article? Does a tweet contain the name of a person? Does the tweet also provide his current location?
Were specified products mentioned in complaints or reviews?

Box 2: Sentiment Analysis

The Text Analytics API's Sentiment Analysis feature provides two ways for detecting positive and negative sentiment. If you send a Sentiment Analysis request, the API will return sentiment labels (such as "negative", "neutral" and "positive") and confidence scores at the sentence and documentlevel.

Reference:

https://docs.microsoft.com/en-us/azure/machine-learning/studio-module-reference/named-entity-recognition

https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics- how-to-sentiment-analysis

Question: 99

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

Explanation:

Question: 100

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: 101

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: 102

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

Explanation:

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

Question: 103

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

Explanation:

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

Question: 104

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

Topic 5, Describe features of conversational AI workloads on Azure

Question: 105

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: 106

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 Area

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

Answer:

Explanation:

Answer Area

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

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: 107

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: 108

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: 109

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: BC

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: 110

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.

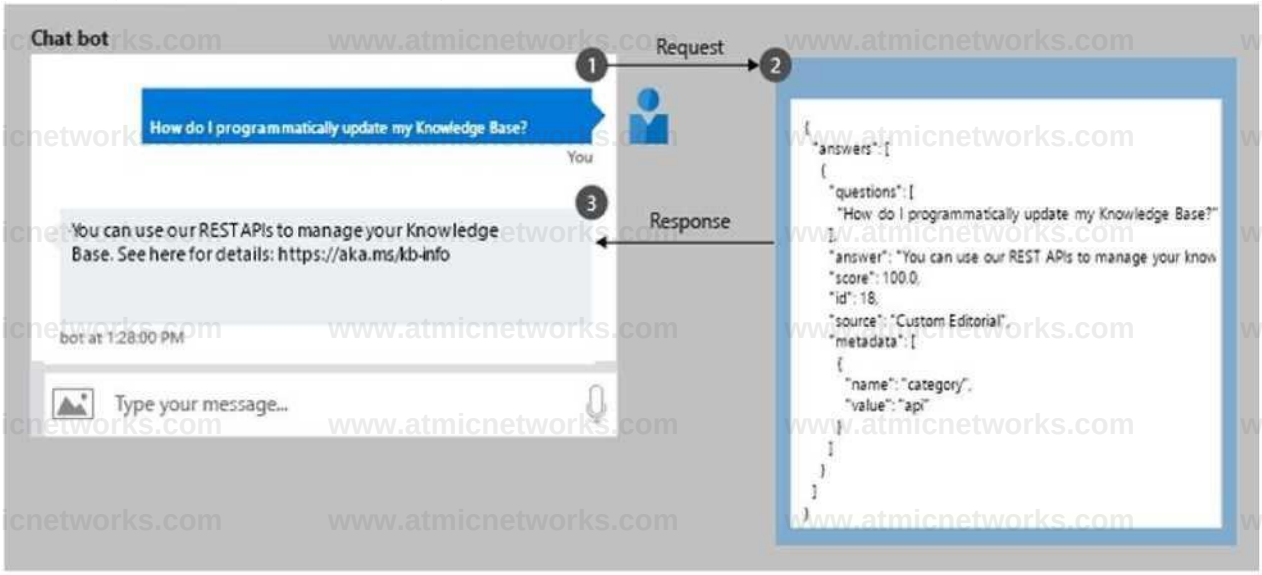
A. a smart device in the home that responds to questions such as "What will the weather be like today?"
B. a website that uses a knowledge base to interactively respond to users' questions
C. assembly line machinery that autonomously inserts headlamps into cars
D. monitoring the temperature of machinery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

Answer: A, B

Explanation:

Question: 111

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

Explanation:

Question: 112

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

A. Custom Vision
B. QnA Maker
C. Translator Text
D. Face

Answer: B

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.

Incorrect Answers:

A: Azure Custom Vision is a cognitive service that lets you build, deploy, and improve your own image classifiers. An image classifier is an AI service that applies labels (which represent classes) to images, according to their visual characteristics. Unlike the Computer Vision service, Custom Vision allows you to specify the labels to apply.

D: Azure Cognitive Services Face Detection API: At a minimum, each detected face corresponds to a faceRectangle field in the response. This set of pixel coordinates for the left, top, width, and height mark the located face. Using these coordinates, you can get the location of the face and its size. In the API response, faces are listed in size order from largest to smallest.

Reference:

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

Question: 113

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

Explanation:

Question: 114

HOTSPOT

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

The interactive answering of questions entered by a user as part of an application is an example of ▼ anomaly detection.

computer vision.

conversational AI.

forecasting.

Answer:

Explanation:

The interactive answering of questions entered by a user as part of an application is an example of ▼ anomaly detection.

computer vision.

conversational AI.

forecasting.

With Microsoft's Conversational AI tools developers can build, connect, deploy, and manage intelligent bots that naturally interact with their users on a website, app, Cortana, Microsoft Teams, Skype, Facebook Messenger, Slack, and more.

Reference:
https://azure.microsoft.com/en-in/blog/microsoft-conversational-ai-tools-enable-developers-to- build-connect-and-manage-intelligent-bots

Question: 115

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

Explanation:

Question: 116

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 use QnA Maker to query an Azure SQL database.	O	O
You should use QnA Maker when you want a knowledge base toprovide the same answer to different users who submit similar questions.	O	O

The QnA Maker service can determine the intent of a user utterance. O O

Answer:

Explanation:

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

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-qna-bot
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: 117

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.	0	0
You can communicate with a bot by using Microsoft Teams.	O	O
You can communicate with a bot by using a webchat interface.	O	O

Answer:

Explanation:

Statements	Yes	No
You can communicate with a bot by using email.	O	0
You can communicate with a bot by using Microsoft Teams.	O	O
You can communicate with a bot by using a webchat interface	O	O

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: 118

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
A restaurant can use a chatbot to empower customers to make reservations by using a website or an app.	0	0
A restaurant can use a chatbot to answer inquiries about business hours from a webpage.	0	0
A restaurant can use a chatbot to automate responses to customer reviews on an external website.	0	0

Answer:

Explanation:

Statements	Yes	No
A restaurant can use a chatbot to empower customers to make Q reservations by using a website or an app.	O	
A restaurant can use a chatbot to answer inquiries about business hours from a webpage.		0
A restaurant can use a chatbot to automate responses to customer Q reviews on an external website.		0

Reference:

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

Question: 119

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

Explanation:

Reference:

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

Question: 120

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

Explanation:

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

Question: 121

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
A bot that responds to queries by internal users is an example of a conversational AI workload.	Q	Q
An application that displays images relating to an entered search term is an example of a conversational AI workload.	Q	Q
A web form used to submit a request to reset a password is an example of a conversational AI workload.	Q	Q

Answer:

Explanation:

Statements	Yes	No

A bot that responds to queries by internal users is an example of a Q Q
conversational AI workload.

An application that displays images relating to an entered search term is Q an example of a conversational AI workload.

A web form used to submit a request to reset a password is an example Q Q
of a conversational AI workload.

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

Question: 122

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
A wetchat bot can interact with users visiting a website.	
Automatically generating captions for pre-recorded videos B an example of conversational AI.	
A smart device in tire home that responds to Questions such as 'What will the weather be like today** ts an example of conversational AI	

Answer:

Explanation:

Statements	Yes No
A iwixfiai bot on interact with users visiting a website.	•
Automatically generating captions for pre-recorded videos is an example of conversational	• AI.
A smart device in die home that responds to questions such as "What will the weather be	• like todayf is an example of conversational AI

Question: 123

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 use the Translator service to translate text between languages		
You can use the Translator service to detect the language of a given ten		
You can use the Translator service to transcribe audible speech into text		

Answer:

Explanation:

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	•	

Question: 124

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
Providing an explanation of the outcome of a credit loan application <s an example of the Microsoft transparency principle for responsible AI.		
A tnage bet 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:

Explanation:

Statements	Yes	No
Prwdmg an explanation of the outcome of a credit loan application s an example of the Microsoft transparency principle for responsible AI.	•	

A tnage tot that prioritizes insurance claims based on injuries 6 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 c an example of • the Microsoft inclusiveness principle for responsible AI

Question: 125

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

Computer vision capabilities can be Deployed to……..

Answer: see the answer in below

Explanation

Explanation:

Integrate a facial recognition feature into an app.

Computer vision capabilities can be deployed to integrate a facial recognition feature into an app

Question: 126

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

Explanation:

Question: 127

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

Explanation:

Question: 128

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

Explanation:

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

Question: 129

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

Explanation:

Question: 130

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-overview

Question: 131

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 train a regression model by using unlabeled data.		
The classification technique is used to predict sequential numerical data over time		
Grouping items by their common characteristics is an example of clustering.		

Answer:

Explanation:

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

Question: 132

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
Chatbots can support voice input		
A separate chatbot is required for each communication channel		
Chatbots manage conversation flows by using a combination of natural language and constrained option responses.		

Answer:

Explanation:

Statements	No
Chatbots can support vote? input	
A separate chatbot B requited for each communication channel	
Chatbots manage conversation flows by using a combination of natural language and constrained option responses	

Question: 133

DRAG DROP

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

Service*	Answer Area
Amie Storage	triable* the me or natural language to query a knowledge bate.
| language Understanding (LIUS) | l QnA Maker	(Enables the realtime transcription of speech to text
Speech	

Answer:

Explanation:

Services	Answer Area
Azure Storage	QnA Makfr [Enables the use of natural language to query a knowledge base.
Language Understanding (LUIS)	Language Understanding (LUIS) Enables the real-time transcription of speech-to-text
QnA Maker	
Speech	

Question: 134

DRAG DROP

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 Area

Principle*

fairness — AI system* must consistently operate as intended, even under unexpected conditions.

Inclusiveness — AI systems must protect and secure personal and businesses information

Privacy ana secwit

Reliability and safe

Answer:

Explanation:

Principles	Answer Area
Fairness	
Inclusiveness	Privacy and security AI systems must protect and secure personal and businesses information.
Privacy and securit	
Reliability and safe	| Reliability and safety | AI systems must consistently operate as intended, even under unexpected conditions.

Question: 135

HOTSPOT

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

NOTE: Each correct selection is worth one point.

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

Answer:

Explanation:

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