AI-900^{Q&As}

Microsoft Azure AI Fundamentals

Pass Microsoft AI-900 Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

https://www.pass2lead.com/ai-900.html

100% Passing Guarantee
100% Money Back Assurance

Following Questions and Answers are all new published by Microsoft Official Exam Center

Instant Download After Purchase

100% Money Back Guarantee

365 Days Free Update

800,000+ Satisfied Customers

QUESTION 1

Which scenario is an example of a webchat bot?

A. Determine whether reviews entered on a website for a concert are positive or negative, and then add a thumbs up or thumbs down emoji to the reviews.

B. Translate into English questions entered by customers at a kiosk so that the appropriate person can call the customers back.

C. Accept questions through email, and then route the email messages to the correct person based on the content of the message.

D. From a website interface, answer common questions about scheduled events and ticket purchases for a music festival.

Correct Answer: D

QUESTION 2

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

A. sentiment analysis

B. speech recognition

C. key phrase extraction

D. entity recognition

Correct Answer: A

Sentiment analysis is analytical technique that uses statistics, natural language processing, and machine learning to determine the emotional meaning of communications. Companies use sentiment analysis to evaluate customer messages, call center interactions, online reviews, social media posts, and other content.

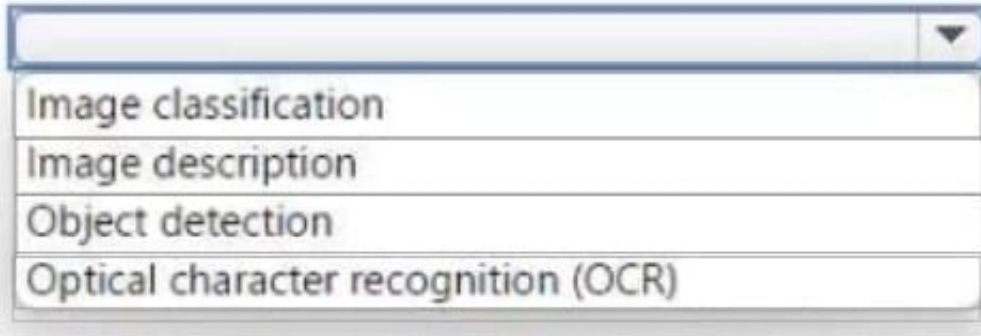Reference: https://www.cio.com/article/189218/what-is-sentiment-analysis-using-nlp-and-ml-to-extract-meaning.html

QUESTION 3

HOTSPOT

Select the answer that correctly completes the sentence.

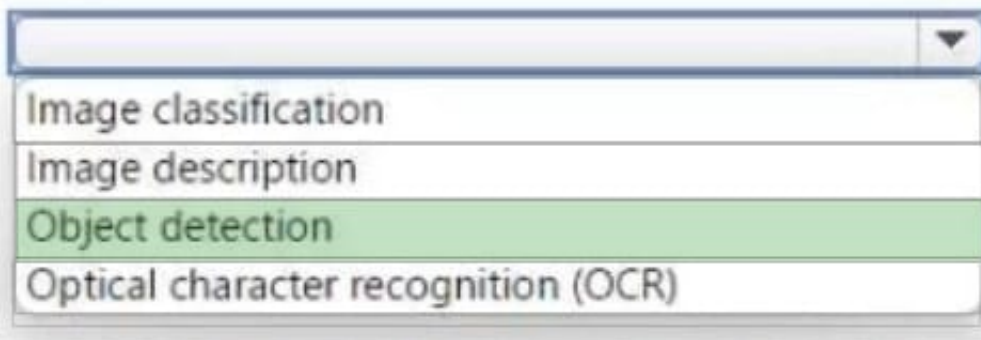Hot Area:

![Pass2Lead](https://Pass2Lead.com)
Answer Area

is used to identify multiple types of items in one image.
Image classification
Image description
Object detection
Optical character recognition (OCR)

is used to identify multiple types of items in one image.

Correct Answer:

Answer Area

is used to identify multiple types of items in one image.
Image classification
Image description
Object detection
Optical character recognition (OCR)

is used to identify multiple types of items in one image.

Box: Object detection Object detection is similar to tagging, but the API returns the bounding box coordinates (in pixels) for each object found in the image. For example, if an image contains a dog, cat and person, the Detect operation will list those objects 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 object in an image.

The object detection function 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 object detection function only finds objects and living things, while the tag function can also include contextual terms like "indoor", which can\\'t be localized with bounding boxes.

Incorrect:

* Image classification Classification and object detection Custom Vision functionality can be divided into two features. Image classification applies one or more labels to an entire image. Object detection is similar, but it returns the coordinates in the image where the applied label(s) can be found.

Reference: https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-object-detection https://learn.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/overview

QUESTION 4

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

Correct Answer: C

Reference:

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

AI systems should empower everyone and engage people. AI should bring benefits to all parts of society, regardless of physical ability, gender, sexual orientation, ethnicity, or other factors.

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

QUESTION 5

HOTSPOT

Select the answer that correctly completes the sentence.

Hot Area:

Answer Area

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

Correct Answer:

Answer Area

A banking system that predicts whether a loan will be repaid

is an example of the [▼] type of machine learning.

clustering
regression
classification

Box 1: Regression

Regression is a supervised machine learning technique used to predict numeric values.

Scenarios for regression machine learning models

Regression machine learning models are used in many industries. A few scenarios are:

Using characteristics of houses, such as square footage and number of rooms, to predict home prices.

Using characteristics of farm conditions, such as weather and soil quality, to predict crop yield.

Using characteristics of a past campaign, such as advertising logs, to predict future advertisement clicks.

Note: Loan chargeoff prediction with SQL Server, example.

Solution details

A charged off loan is a loan that is declared by a creditor (usually a lending institution) that an amount of debt is unlikely to be collected, usually when the loan repayment is severely delinquent by the debtor. Given that high chargeoff has a

negative impact on lending institutions' year-end financials, lending institutions often monitor loan chargeoff risk very closely to prevent loans from getting charged-off.

There are multiple benefits for lending institutions to equip with loan chargeoff prediction data. Charging off a loan is the last resort that the bank will do on a severely delinquent loan, with the prediction data at hand, the loan officer could offer

personalized incentives like lower interest rate or longer repayment period to help customers to keep making loan payments and thus prevent the loan of getting charged off. To get to this type of prediction data, often credit unions or banks

manually handcraft the data based on customers\\' past payment history and performed simple statistical regression analysis.

Reference: https://learn.microsoft.com/en-us/training/modules/create-regression-model-azure-machine-learning-designer/2-regression-scenarios

![Pass2Lead](https://Pass2Lead.com)
QUESTION 6

HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Custom Vision service can be used to detect objects in an image.	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

Correct Answer:

Answer Area

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.

![Pass2Lead](https://Pass2Lead.com)
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 7

You are evaluating whether to use a basic workspace or an enterprise workspace in Azure Machine Learning.

What are two tasks that require an enterprise workspace? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. Use a graphical user interface (GUI) to run automated machine learning experiments.

B. Create a compute instance to use as a workstation.

C. Use a graphical user interface (GUI) to define and run machine learning experiments from Azure Machine Learning designer.

D. Create a dataset from a comma-separated value (CSV) file.

Correct Answer: AC

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 8

A historian can use _____ to digitize newspaper articles. Select the answer that correctly completes the sentence.

A. Object detection

B. Facial recognition

C. Image classification

D. Optical character recognition (OCR)

Correct Answer: D

QUESTION 9

Which metric can you use to evaluate a classification model?

A. true positive rate

B. mean absolute error (MAE)

C. coefficient of determination (R2)

D. root mean squared error (RMSE)

Correct Answer: A

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 10

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

Correct Answer: C

To train the model, we will create Azure Machine Learning Compute resource.

Reference: https://github.com/solliancenet/azure-machine-learning-quickstarts/blob/master/aml-visual-interface/README.md

QUESTION 11

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

![Pass2Lead](https://Pass2Lead.com)
content.

NOTE: Each correct selection is worth one point.

Select and Place:

Principles

Fairness
Privacy and security
Reliability and safety
Transparency

Answer Area

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

Correct Answer:

Principles

Reliability and safety

Answer Area

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 12

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

A. Text Analytics

B. Translator Text

C. Speech

D. Language Understanding (LUIS)

Correct Answer: C

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

QUESTION 13

DRAG DROP

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

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

Select and Place:

Actions

Train the model.

Split the data randomly into training data and validation data.

Evaluate the model against the original dataset.

Evaluate the model against the validation dataset.

Ingest and prepare a dataset.

Answer area

Correct Answer:

Actions

Evaluate the model against the original dataset.

Answer area

Ingest and prepare a dataset.

Split the data randomly into training data and validation data.

Train the model.

Evaluate the model against the validation dataset.

QUESTION 14

HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You can use Language Service's question answering to query an Azure SQL database.	O	O
You should use Language Service's question answering when you want a knowledge base to provide the same answer to different users who submit similar questions.	O	O
Language Service's question answering can determine the intent of a user utterance.	O	O

Correct Answer:

Answer Area

Statements	Yes	No
You can use Language Service's question answering to query an Azure SQL database.	O	◉
You should use Language Service's question answering when you want a knowledge base to provide the same answer to different users who submit similar questions.	◉	O
Language Service's question answering can determine the intent of a user utterance.	O	◉

Box 1: No

Box 2: Yes

Create a conversational question-and-answer layer over your existing data with question answering, an Azure Cognitive Service for Language feature. Build a knowledge base by adding unstructured documents or extracting questions and

answers from your semi-structured content, including FAQ, manuals, and documents. Get the best answers from the questions and answers in your knowledge base automatically. Your knowledge base gets smarter, too, as it continually

learns from user behavior.

Box 3: No

For Intent recognition use the Speech and Language Understanding (LUIS) services, which enables real-time transcription of audio streams into text, while identifying intent and entities.

Note: Question answering provides cloud-based Natural Language Processing (NLP) that allows you to create a natural conversational layer over your data. It is used to find the most appropriate answer for any input from your custom

knowledge base (KB) of information.

![Pass2Lead](https://Pass2Lead.com)
QUESTION 15

HOTSPOT

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
For a regression model, labels must be numeric.	○	○
For a clustering model, labels must be used.	○	○
For a classification model, labels must be numeric.	○	○

Correct Answer:

Answer Area

Statements	Yes	No
For a regression model, labels must be numeric.	●	○
For a clustering model, labels must be used.	○	●
For a classification model, labels must be numeric.	○	●

Box 1: Yes

![Pass2Lead](https://Pass2Lead.com)
For regression problems, the label column must contain numeric data that represents the response variable. Ideally the numeric data represents a continuous scale.

Box 2: No

K-Means Clustering

Because the K-means algorithm is an unsupervised learning method, a label column is optional.

If your data includes a label, you can use the label values to guide selection of the clusters and optimize the model.

If your data has no label, the algorithm creates clusters representing possible categories, based solely on the data.

Box 3: No

For classification problems, the label column must contain either categorical values or discrete values. Some examples might be a yes/no rating, a disease classification code or name, or an income group. If you pick a noncategorical column,

the component will return an error during training.

Reference: https://docs.microsoft.com/en-us/azure/machine-learning/component-reference/train-model
https://docs.microsoft.com/en-us/azure/machine-learning/component-reference/k-means-clustering

AI-900 PDF Dumps   AI-900 VCE Dumps   AI-900 Study Guide