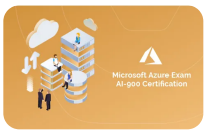
← Back to the **Course**



Level: Beginner

Microsoft Azure Exam AI-900 Certification

Free Test

Completed on **Fri, 14 Jan 2022**

1st
Attempt

10/15
Marks Obtained

66.67%
Your Score

0h 8m 2s
Time Taken

FAIL
Result

Domain wise Quiz Performance Report

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No.	Domain	Total Question	Correct	Incorrect	Unattempted
1	Describe AI workloads and [illegible] of machine learning on Azure	2	1	1	0
3	Describe features of computer vision workloads on Azure	3	1	2	0
4	Describe features of Natural Language Processing (NLP) workloads on Azure	2	1	1	0

No.	Domain	Total Question	Correct	Incorrect	Unattempted
5	Describe features of conversational AI workloads on Azure	3	2	1	0
Total	**All Domains**	**15**	**10**	**5**	**0**

Review the Answers

Filter By All Questions

Question 1

Incorrect

Domain: Describe AI workloads and considerations

Please select all options that are NOT the key elements of Artificial Intelligence.

A. Machine Learning

B. Anomaly Detection

- [x] C. Computer Vision wrong

D. Object Detection right

E. Natural Language Processing

F. Conversational AI

- [x] G. Automated Machine Learning right

Explanation:

Correct Answers: D and G

There are five key elements of Microsoft Artificial Intelligence:

Machine Learning - the foundation of AI systems.

Anomaly Detection - tools and services for identification of the unusual activities.

Computer Vision - tools and services for understanding and recognising objects in images, video, faces and text.

Natural Language Processing - tools and services for language understanding: text, speech, text analysis and translation

Conversational AI - tools and services for intelligent conversation.

Option D is correct. Object Detection - is one of the common tasks of Computer Vision and is not the key element of Artificial Intelligence.

Options G is correct. Automated Machine Learning - is a feature of Machine Learning and is not the key element of Artificial Intelligence.

All other options are incorrect because they are the key elements of Artificial Intelligence.

For more information about the key elements of AI, please visit the below URL:

https://docs.microsoft.com/en-us/learn/modules/get-started-ai-fundamentals/1-introduction

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Question 2

Correct

Domain: Describe AI workloads and considerations

You created an AI solution. Along with solution deployment, you provided information about the solution's possibilities and limitations. By providing this information, with what principle for responsible AI did you comply?

A. Fairness

B. Reliability and safety

C. Privacy and security

D. Transparency right

E. Inclusiveness

F. Accountability

Explanation:

Correct Answers: D

Microsoft recognizes six principles of responsible AI:

Fairness, Reliability and safety, Privacy and security, Transparency, Inclusiveness Accountability.

The principle of Transparency helps people to understand how to use AI solutions, their behavior, possibilities, and limitations.

All other options are incorrect.

For more information about guiding principles for responsible AI, please visit the below URLs:

https://www.microsoft.com/en-us/ai/responsible-ai?activetab=pivot1:primaryr6

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

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Question 3

Correct

Domain: Describe fundamental principles of machine learning on Azure

You are working for a car dealership. Your boss asks you to provide him information about how many blue cars he needs to order for the next quarter.

You decide to create an ML model and choose an unsupervised machine learning approach.

Will this help you to achieve your goal?

A. Yes

B. No right

Explanation:

Correct Answers: B

Your task is to provide a numeric prediction. You can achieve this by creating a regression model based on the historical sales data of the blue cars from previous quarters. A Regression and Classification modeling types are two parts of Supervised machine learning. Only Clustering belongs to Unsupervised machine learning. If you choose the Unsupervised machine learning approach, you will not achieve your goal.

For more information about Supervised and Unsupervised ML, please visit the below URL:

https://azure.microsoft.com/en-us/overview/what-is-machine-learning-platform/#benefits

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Question 4 Correct Marked for review

Domain: Describe fundamental principles of machine learning on Azure

You are working for a car dealership. Your boss asks you to provide him forecast information: will the new car model be successful or not. The new model has a variety of engine improvements, more comfortable seats, and a sunroof. You compiled the list of data about previous successful models with their characteristics and sales numbers.

What should you do in the pre-processing data stage that would help you to predict the success of the new model?

A. Data selection

B. Training set selection

C. Data for model evaluation selection

D. Feature selection right

E. Data classification

Explanation:

Correct Answers: D

During pre-processing, you need to work with data to select features that influence the label prediction. In this problem, features are the engine characteristics (power or volume), seat comforts, etc. They could help the ML model to predict the success of the new car model. Maybe the sunroof is not essential for predicting the label, and we need to discard this feature from the final set of features that we will use for model training.

In short, Feature selection helps us to narrow down the features that are important for our label prediction and discard all features that don't play or play a minimal role in a label prediction. As a result, our trained model and prediction will be more efficient.

All other options are incorrect because they are parts of the different data processing events that are irrelevant to the pre-processing (Training set selection or Data for model evaluation selection) or too generic (Data selection or Data Classification).

For more information about Feature selection, please visit the below URL:

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

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Question 5

Correct

Domain: Describe fundamental principles of machine learning on Azure

You created a classification model with four possible classes.

What will be the size of the confusion matrix?

A. 2x2

B. 3x3

C. 4x4 right

D. 6x6

E. 10x10

Explanation:

Correct Answers: C

The confusion matrix provides a tabulated view of predicted and actual values for each class. If we are predicting the classification for four classes, our confusion matrix will have 4x4 size.

All other options are incorrect.

For more information about the Confusion matrix, please visit the below URL:

https://docs.microsoft.com/en-us/azure/machine-learning/how-to-understand-automated-ml#confusion-matrix

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Question 6

Correct

Domain: Describe fundamental principles of machine learning on Azure

When you are preparing data for the model training, you have to use your domain knowledge to select the label (or labels), features, and scale and normalize them.

What is the generic name for the process that includes all the steps mentioned above?

A. Feature selections

B. Data normalization

C. Model training

D. Featurization right

E. Missing data handling

Explanation:

Correct Answers: D

Data pre-processing that involves various techniques, like scaling, normalization or feature engineering, etc. calls **featurization.**

Option A is incorrect because Feature selections is one of the elements of featurization.

Option B is incorrect because Data normalization is also one of the elements of featurization.

Option C is incorrect because Model Training is the next predictive modeling step after featurization.

Option E is incorrect because Missing data handling is one of the elements of featurization.

For more information about Featurization, please visit the below URLs:

https://docs.microsoft.com/en-us/azure/machine-learning/concept-automated-ml#feature-engineering

https://docs.microsoft.com/en-us/azure/machine-learning/how-to-configure-auto-features#featurization

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Question 7

Correct

Domain: Describe fundamental principles of machine learning on Azure

What are the four types of Compute resources you can use in Azure Machine Learning Studio?

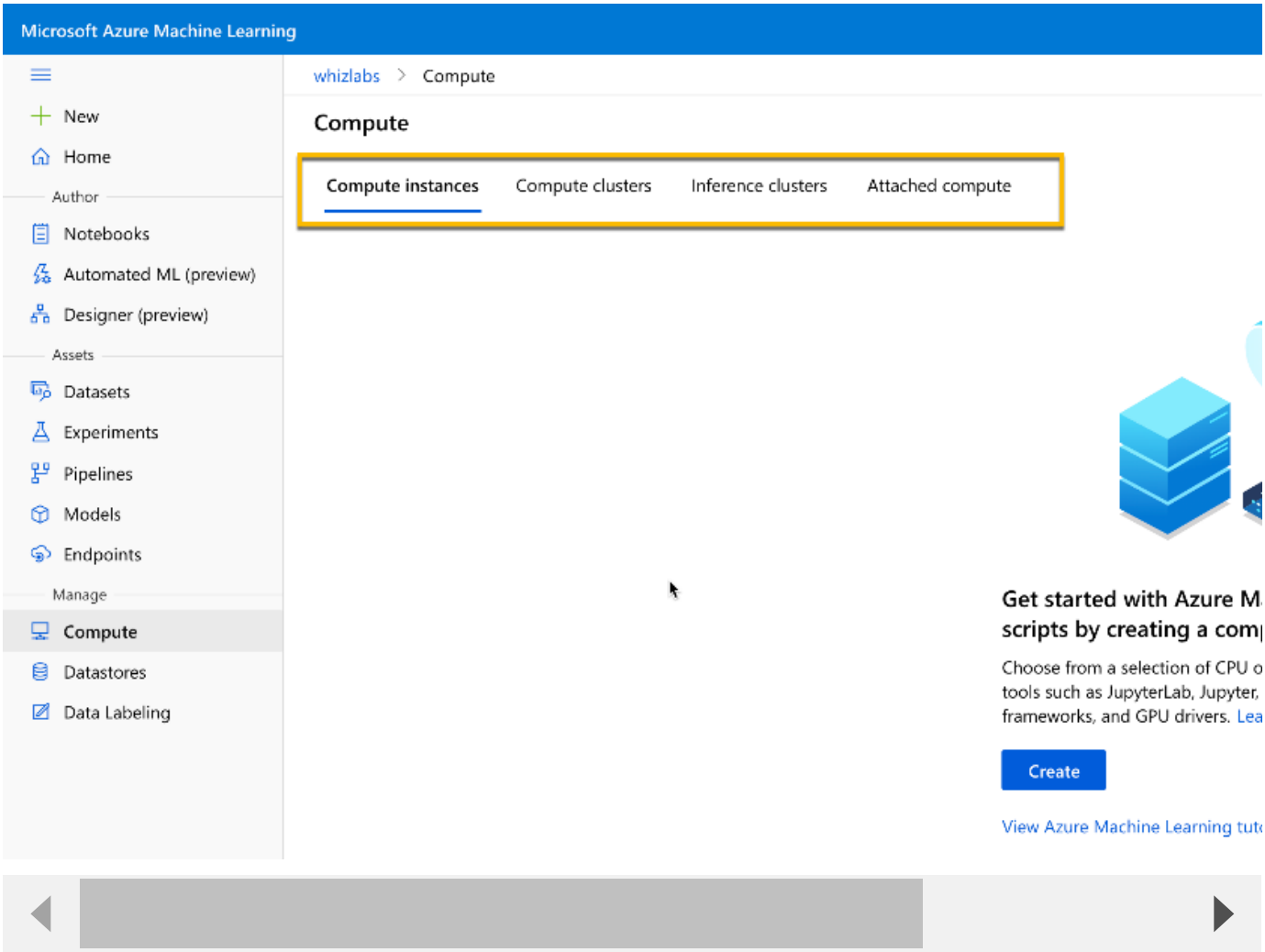
Please select all that apply.

- [x] A. Compute Instances right
- [ ] B. Automated ML instances
- [x] C. Compute clusters right
- [x] D. Inference clusters right
- [ ] E. Classification clusters
- [x] F. Attached compute right
- [ ] G. AKS Cluster instances

Explanation:

Correct Answers: A, C, D, and F

When you open Compute blade in Microsoft Azure Machine Learning Studio, you can see all four compute resources:



Option B is incorrect because Automated ML instances is the generic ML instance.

Option G is incorrect because AKS Cluster Instance is the generic representation of Azure Kubernetes cluster.

For more information about Azure ML Studio compute resources, please visit the below URLs:

https://docs.microsoft.com/en-us/azure/machine-learning/how-to-create-attach-compute-studio#portal-create

https://docs.microsoft.com/en-us/learn/modules/use-automated-machine-learning/create-compute

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Question 8

Incorr

Domain: Describe features of computer vision workloads on Azure

You created a Custom Vision model. You want your model to detect trained objects on the photos.

What information will you get about each object if you are using an object detection model?

Please select all that apply.

A. Image type

- [x] B. Bounding box right

C. Image category

D. Class name right

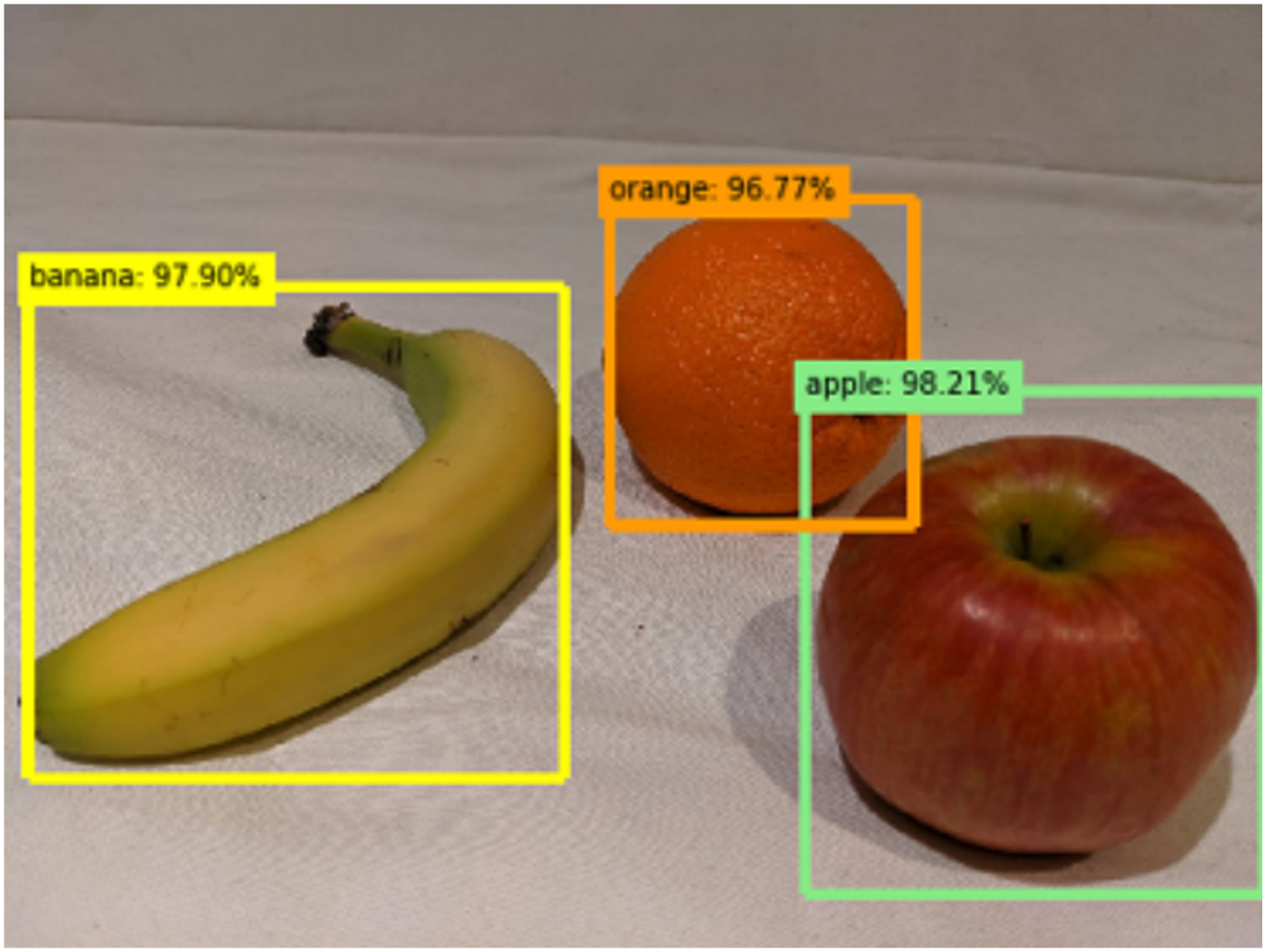
- [x] E. Probability score right
- [ ] F. Content name wrong

Explanation:

Correct Answers: B, D, and E.

Object detection is the form of ML that helps to recognize objects on the images. Each recognizable object will be put in the bounding box with the class name and probability score.

Here is the Microsoft information about the object detection model:



All other options are incorrect because they are not part of the return information from the object detection model.

For more information about Object detection, please visit the below URL:

https://docs.microsoft.com/en-us/learn/modules/detect-objects-images-custom-vision/1-introduction

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Question 9

Corr

Domain: Describe features of computer vision workloads on Azure

The application scans a document with a lot of pages. It returns the following information for each page: page information, lines information, and words for each line with a confidence level.

What API does the application use to scan the document?

A. OCR

B. NLP

C. Read right

D. Text Analytics

E. LUIS

Explanation:

Correct Answers: C

Read API is part of Computer Vision services. It helps to "read" texts within predominantly document images. Read API is an asynchronous service specially designed for the heavy on text images or documents with a lot of the distortions. It produces a result that includes: page information for each page including page size and orientation; information about each line on the page and information about each word in each line including bounding box of each word as indication of the word position in the image.

Option A is incorrect since OCR API is a synchronous service for the recognition of small amounts of text in the images. It returns regions of the text in the image, lines of the text in the region, and words in each line.

Option B is incorrect since Natural Language Processing (NLP) is one the key elements of Artificial Intelligence and is not the part of Computer Vision that deals with text extraction from the images.

Option D is incorrect since Text Analytics is the part of Natural Processing Language (NLP) and is not the part of Computer Vision that deals with text extraction from the images.

Option E is incorrect since Language Understanding Intelligent Service (LUIS) is the part of Natural Processing Language (NLP) and is not the part of Computer Vision that deals with text extraction from the images.

For more information about Read API, please visit the below URLs:

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

https://docs.microsoft.com/en-us/learn/modules/read-text-computer-vision/2-ocr-azure

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Question 10

Incorrect

Domain: Describe features of computer vision workloads on Azure

You created a Custom Vision model using the Custom Vision portal.

What information do you need to provide to the developers to use this model?

Please select all that apply.

- A. Project ID — right
- [ ] B. Security Key — wrong
- C. Model name — right
- [ ] D. Prediction key — right
- [ ] E. Cognitive Service key — wrong
- [ ] F. Prediction Endpoint — right

Explanation:

Correct Answers: A, C, D, and F.

If you create a Cognitive Service to train and publish the Custom Vision model, you can provide a Cognitive Service endpoint and Cognitive Service key to the developers for access to the model. But if you use the Custom Vision portal or create a Custom Vision resource within Cognitive Service, you will have two separate resources for training and publishing a model. In this case, you need to provide the four pieces of information to the developers: Project ID, Model name, Prediction Key, and Prediction Endpoint.

Option B is incorrect since Security Key is just a generic key that isn't applicable in this case.

Option E is incorrect since we need to provide the pair: Cognitive Service endpoint and Cognitive Service key. Only one of them, a Cognitive Service key, will not work.

For more information about Custom Vision, please visit the below URLs:

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

https://docs.microsoft.com/en-us/learn/modules/classify-images-custom-vision/2-azure-image-classification

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Question 11

Correct

Domain: Describe features of Natural Language Processing (NLP) workloads on Azure

You are working at the hotel chain. You are planning to apply Natural Language Processing for the sentiment analysis of the customer reviews.

What sentiment score should you expect for the following review: "The prices were ridiculously high. We could stay at the palace for that price! The water in the shower was cold, no hot water whatsoever"?

A. 1

B. 0.5

C. 2

D. 0.9

E. 0.1 right

Explanation:

Correct Answers: E.

Sentiment analysis is producing the sentiment score between 0 and 1. A score close to 0 means a negative sentiment, and close to 1 - positive. And in cases with neutral or undefined sentiment the score is 0.5. In this problem, the review is negative, and we should expect a score of 0.1.

All other options are incorrect.

For more information about Sentiment Analysis, please visit the below URL:

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

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Question 12

Incorrect

Domain: Describe features of Natural Language Processing (NLP) workloads on Azure

What are the four types of entities that you can create during the authoring of the LUIS Application?

- [x] A. Machine-Learned right
- [x] B. List right
- [ ] C. FAQ document
- [ ] D. RegEx right
- [ ] E. Chit-chat
- [x] F. Pattern.any right
- [x] G. Alternative phrasing wrong

Explanation:

Correct Answers: A, B, D, and F

During an authoring phase for a Language Understanding application, we need to create intents, entities, and train a model. There are four types of entities that we can create: Machine-Learned, List, RegEx, and Pattern.any.

All other options are incorrect because they are parts for creating a Knowledge base for Q&A Maker and Azure Bot Service.

For more information about LUIS, please visit the below URLs:

https://docs.microsoft.com/en-us/learn/modules/create-language-model-with-language-understanding/2-get-started

https://www.luis.ai/

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Question 13

Corr

Domain: Describe features of conversational AI workloads on Azure

What components do you need to create a simple Web Chat Bot?

Select all that apply.

A. Entities

- [x] B. Knowledge base right

C. Utterances

- [x] D. Bot Service right

E. LUIS

F. Text Analytics

Explanation:

Correct Answers: B and D

To create a simple Web Chat Bot, you need just two components: Knowledge Base and Bot Service.

We can create a Knowledge base from web site information or FAQ documents, etc. Usually, the Knowledge base is a list of question and answer pairs. Bot Service provides an interface to interact with a Knowledge Base from different channels.

Option A and C are incorrect because Entities and Utterances are the parts of LUIS authoring and are not components of Web Chat Bot.

Option E is incorrect since Language Understanding Intelligent Service (LUIS) is Natural Processing Language (NLP) service and is not a component of Web Chat Bot.

Option F is incorrect since Text Analytics is Natural Processing Language (NLP) service and is not a component of Web Chat Bot.

For more information about Bot Service, please visit the below URLs:

https://docs.microsoft.com/en-us/learn/modules/build-faq-chatbot-qna-maker-azure-bot-service/1-introduction

https://azure.microsoft.com/en-us/services/bot-service/

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Question 14

Correct

Domain: Describe features of conversational AI workloads on Azure

You want to build a personal virtual assistant. What service will you use to connect your assistant with various input channels and devices?

A. Computer Vision

B. Azure Bot Service right

C. QnA Maker

D. LUIS

E. Speech to Text

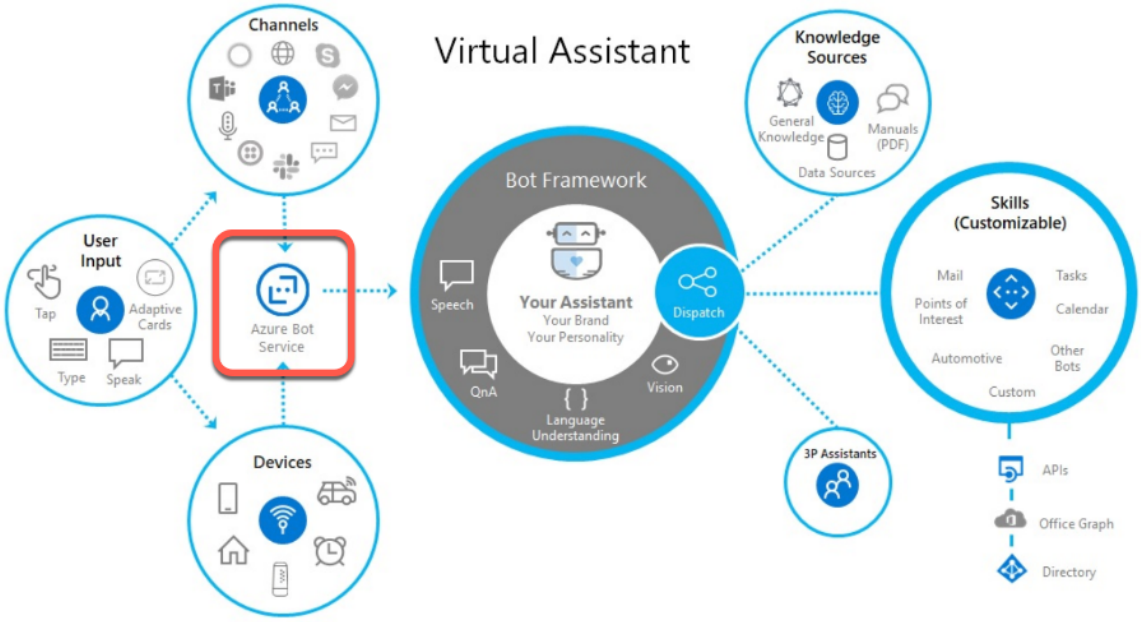
F. Text Analytics

Explanation:

Correct Answers: B

Azure Bot Service connects various channels and devices that users can use for their inquiries.

The Microsoft documentation provides the following information about Virtual Assistant



As you can see on the left side, Azure Bot Service serves as data input for Virtual Assistant.

All other options are incorrect.

For more information about Personal Assistant, please visit the below URLs:

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

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Question 15

Incorrect

Domain: Describe features of conversational AI workloads on Azure

You build a Bot using Bot Framework and Azure Bot Service. You want to extend the capabilities of your Bot.

What will you use to achieve your goal?

A. Custom Vision

B. Language Translation

C. Chit-Chat

D. Skills right

E. Text to Speech

F. FAQ Document wrong

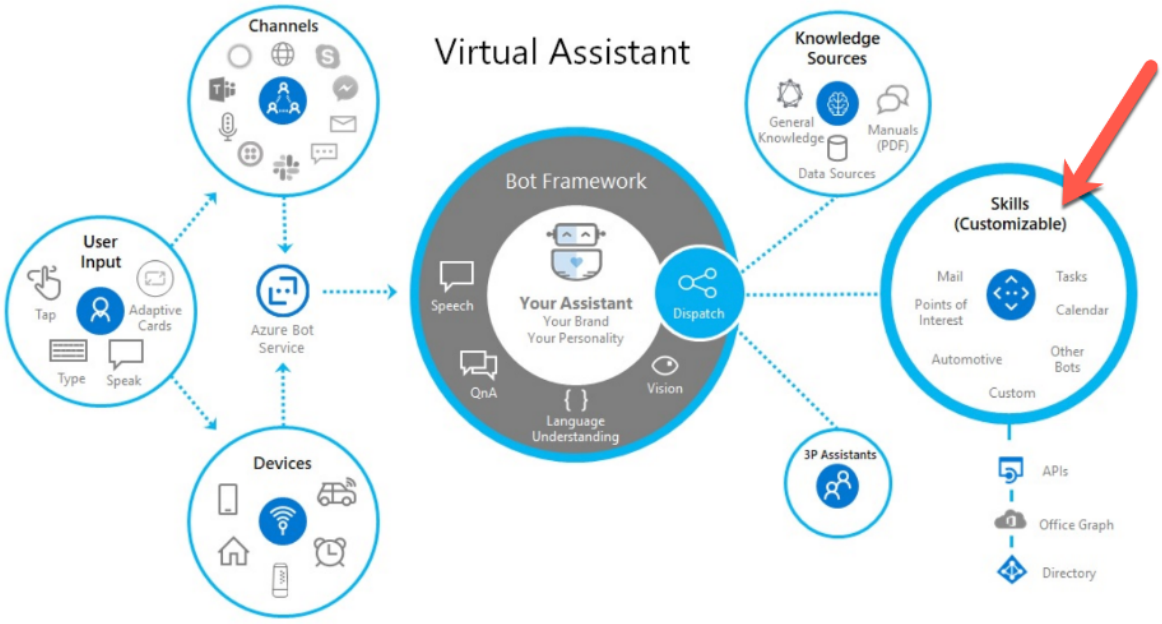
Explanation:

Correct Answers: D

Using Bot Framework Skills, you can easily extend the capabilities of your Bot. Skills are like standalone bots that focus on a specific function, like Calendar, To Do, Point of Interest, etc.

In the Virtual Assistant design, Bot Framework dispatches actions to Skills.

Here is the Microsoft information about Bot Framework and Skills as parts of Virtual Assistant:



Option A is incorrect because Custom Vision is one the Computer Vision services and potentially can extend Bot functionality as part of the Skill.

Option B and E are incorrect because Language Translation and Text to Speech are Natural Language Processing services and potentially can extend Bot functionality as part of the Skill.

Option C and F are incorrect because Chit-Chat and FAQ documents are the parts for creating a Knowledge base for Q&A Maker and Azure Bot Service.

For more information about Bot Framework Skills, please visit the below URLs:

https://microsoft.github.io/botframework-solutions/overview/skills/

https://microsoft.github.io/botframework-solutions/overview/virtual-assistant-solution/

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