

[Custom View Settings](#)**Topic 1 - Question Set 1**

Question #1

Topic 1

DRAG DROP -

You have 100 chatbots that each has its own Language Understanding model.

Frequently, you must add the same phrases to each model.

You need to programmatically update the Language Understanding models to include the new phrases.

How should you complete the code? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
AddPhraseListAsync	var phraselistId = await client.Features.
Phraselist	(appId, versionId, new
PhraselistCreateObject	{
Phrases	EnabledForAllModels = false,
SavePhraselistAsync	IsExchangeable = true,
UploadPhraseListAsync	Name = "PL1",
	Phrases = "item1,item2,item3,item4,item5"
	});

Correct Answer:

Values	Answer Area
AddPhraseListAsync	var phraselistId = await client.Features. AddPhraseListAsync
Phraselist	(appId, versionId, new PhraselistCreateObject
PhraselistCreateObject	{
Phrases	EnabledForAllModels = false,
SavePhraselistAsync	IsExchangeable = true,
UploadPhraseListAsync	Name = "PL1",
	Phrases = "item1,item2,item3,item4,item5"
	});

Box 1: AddPhraseListAsync -

Example: Add phraselist feature -

```
var phraselistId = await client.Features.AddPhraseListAsync(appId, versionId, new PhraselistCreateObject
{
    EnabledForAllModels = false,
    IsExchangeable = true,
    Name = "QuantityPhraselist",
    Phrases = "few,more,extra"
});
```

Box 2: PhraselistCreateObject -

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/client-libraries-rest-api>

DRAG DROP -

You plan to use a Language Understanding application named app1 that is deployed to a container.

App1 was developed by using a Language Understanding authoring resource named lu1.

App1 has the versions shown in the following table.

Version	Trained date	Published date
V1.2	<i>None</i>	<i>None</i>
V1.1	2020-10-01	<i>None</i>
V1.0	2020-09-01	2020-09-15

You need to create a container that uses the latest deployable version of app1.

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

Select and Place:

Actions	Answer Area
Run a container that has version set as an environment variable.	
Export the model by using the Export as JSON option.	
Select v1.1 of app1.	
Run a container and mount the model file.	
Select v1.0 of app1.	
Export the model by using the Export for containers (GZIP) option.	
Select v1.2 of app1.	

Actions

- Run a container that has version set as an environment variable.
- Export the model by using the Export as JSON option.
- Select v1.1 of app1.
- Correct Answer:** Run a container and mount the model file.
- Select v1.0 of app1.
- Export the model by using the Export for containers (GZIP) option.
- Select v1.2 of app1.

Answer Area

- Export the model by using the Export for containers (GZIP) option.
- Select v1.1 of app1.
- Run a container and mount the model file.

Step 1: Export the model using the Export for containers (GZIP) option.

Export versioned app's package from LUIS portal

The versioned app's package is available from the Versions list page.

1. Sign on to the LUIS portal.
2. Select the app in the list.
3. Select Manage in the app's navigation bar.
4. Select Versions in the left navigation bar.
5. Select the checkbox to the left of the version name in the list.
6. Select the Export item from the contextual toolbar above the list.
7. Select Export for container (GZIP).
8. The package is downloaded from the browser.

Versions ?

		Rename	Clone	Export	All	Search for version(s)
<input checked="" type="checkbox"/> Version name		Export as JSON		Created	Last modified	
<input checked="" type="checkbox"/>	0.1 (Active & Production)	5/3/18	5/3/18	5/3/18	9/6/18	

Step 2: Select v1.1 of app1.

A trained or published app packaged as a mounted input to the container with its associated App ID.

Step 3: Run a contain and mount the model file.

Run the container, with the required input mount and billing settings.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-howto>

You need to build a chatbot that meets the following requirements:

- Supports chit-chat, knowledge base, and multilingual models
- Performs sentiment analysis on user messages
- Selects the best language model automatically

What should you integrate into the chatbot?

- A. QnA Maker, Language Understanding, and Dispatch
- B. Translator, Speech, and Dispatch
- C. Language Understanding, Text Analytics, and QnA Maker
- D. Text Analytics, Translator, and Dispatch

Correct Answer: C

Language Understanding: An AI service that allows users to interact with your applications, bots, and IoT devices by using natural language.

QnA Maker is a cloud-based Natural Language Processing (NLP) service 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.

Text Analytics: Mine insights in unstructured text using natural language processing (NLP) no machine learning expertise required. Gain a deeper understanding of customer opinions with sentiment analysis. The Language Detection feature of the Azure Text Analytics REST API evaluates text input

Incorrect Answers:

A, B, D: Dispatch uses sample utterances for each of your bot's different tasks (LUIS, QnA Maker, or custom), and builds a model that can be used to properly route your user's request to the right task, even across multiple bots.

Reference:

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

Community vote distribution

C (75%) A (25%)

Your company wants to reduce how long it takes for employees to log receipts in expense reports. All the receipts are in English.

You need to extract top-level information from the receipts, such as the vendor and the transaction total. The solution must minimize development effort.

Which Azure service should you use?

- A. Custom Vision
- B. Personalizer
- C. Form Recognizer
- D. Computer Vision

Correct Answer: C

Azure Form Recognizer is a cognitive service that lets you build automated data processing software using machine learning technology.

Identify and extract text, key/value pairs, selection marks, tables, and structure from your documents the service outputs structured data that includes the relationships in the original file, bounding boxes, confidence and more.

Form Recognizer is composed of custom document processing models, prebuilt models for invoices, receipts, IDs and business cards, and the layout model.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/form-recognizer>

Community vote distribution

C (100%)

HOTSPOT -

You need to create a new resource that will be used to perform sentiment analysis and optical character recognition (OCR). The solution must meet the following requirements:

- Use a single key and endpoint to access multiple services.
- Consolidate billing for future services that you might use.
- Support the use of Computer Vision in the future.

How should you complete the HTTP request to create the new resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

	▼	https://management.azure.com/subscriptions/xxxxxxxx-xxxx-
PATCH		
POST		
PUT		

xxxx-xxxx-
xxxxxxxxxxxx/resourceGroups/RG1/providers/Microsoft.CognitiveServices/
accounts/CS1?api-version=2017-04-18
{
 "location": "West US",
 "kind": "
 ▼
 CognitiveServices
 ComputerVision
 TextAnalytics
 ",
 "sku": {
 "name": "S0"

 },
 "properties": {},
 "identity": {
 "type": "SystemAssigned"

 }
}

Correct Answer:

Answer Area

https://management.azure.com/subscriptions/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx/resourceGroups/RG1/providers/Microsoft.CognitiveServices/accounts/CS1?api-version=2017-04-18

```
{  
  "location": "West US",  
  "kind": "CognitiveServices",  
  "sku": {  
    "name": "S0"  
  },  
  "properties": {},  
  "identity": {  
    "type": "SystemAssigned"  
  }  
}
```

Box 1: PUT -

Sample Request: PUT https://management.azure.com/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/test-rg/providers/

Microsoft.DeviceUpdate/accounts/contoso?api-version=2020-03-01-preview

Incorrect Answers:

PATCH is for updates.

Box 2: CognitiveServices -

Microsoft Azure Cognitive Services provide us to use its pre-trained models for various Business Problems related to Machine Learning.

List of Different Services are:

- Decision
- Language (includes sentiment analysis)
- Speech
- Vision (includes OCR)
- Web Search

Reference:

<https://docs.microsoft.com/en-us/rest/api/deviceupdate/resourcemanager/accounts/create>

<https://www.analyticsvidhya.com/blog/2020/12/microsoft-azure-cognitive-services-api-for-ai-development/>

You are developing a new sales system that will process the video and text from a public-facing website.

You plan to monitor the sales system to ensure that it provides equitable results regardless of the user's location or background.

Which two responsible AI principles provide guidance to meet the monitoring requirements? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

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

Correct Answer: BD

AI systems should treat all people fairly.

AI systems should perform reliably and safely.

Reference:

<https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/responsible-ai>

Community vote distribution

BC (100%)

DRAG DROP -

You plan to use containerized versions of the Anomaly Detector API on local devices for testing and in on-premises datacenters.

You need to ensure that the containerized deployments meet the following requirements:

- Prevent billing and API information from being stored in the command-line histories of the devices that run the container.
- Control access to the container images by using Azure role-based access control (Azure RBAC).

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.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Actions**Answer Area**

- | |
|--|
| Create a custom Dockerfile. |
| Pull the Anomaly Detector container image. |
| Distribute a docker run script. |
| Push the image to an Azure container registry. |
| Build the image. |
| Push the image to Docker Hub. |

Correct Answer:

Actions**Answer Area**

- | |
|--|
| Create a custom Dockerfile. |
| Pull the Anomaly Detector container image. |
| Distribute a docker run script. |
| Push the image to an Azure container registry. |
| Build the image. |
| Push the image to Docker Hub. |

- | |
|--|
| Pull the Anomaly Detector container image. |
| Create a custom Dockerfile. |
| Push the image to an Azure container registry. |
| Distribute a docker run script. |

Step 1: Pull the Anomaly Detector container image.

Step 2: Create a custom Dockerfile

Step 3: Push the image to an Azure container registry.

To push an image to an Azure Container registry, you must first have an image.

Step 4: Distribute the docker run script

Use the docker run command to run the containers.

Reference:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-intro>

HOTSPOT -

You plan to deploy a containerized version of an Azure Cognitive Services service that will be used for text analysis.

You configure https://contoso.cognitiveservices.azure.com as the endpoint URI for the service, and you pull the latest version of the Text Analytics Sentiment Analysis container.

You need to run the container on an Azure virtual machine by using Docker.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \
```

http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment

Eula=accept \

Billing=

http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment

ApiKey=xxxxxxxxxxxxxxxxxxxxxx

Correct Answer:**Answer Area**

```
docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \
```

http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment

Eula=accept \

Billing=

http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment

ApiKey=xxxxxxxxxxxxxxxxxxxxxx

Box 1: mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment

To run the Sentiment Analysis v3 container, execute the following docker run command. docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \ mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment \

Eula=accept \

Billing={ENDPOINT_URI} \

ApiKey={API_KEY} is the endpoint for accessing the Text Analytics API. https://<your-custom-subdomain>.cognitiveservices.azure.com

Box 2: https://contoso.cognitiveservices.azure.com

{ENDPOINT_URI} is the endpoint for accessing the Text Analytics API: https://<your-custom-subdomain>.cognitiveservices.azure.com. The endpoint for accessing the Text

Analytics API. zure.com -

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-install-containers?tabs=sentiment>

You have the following C# method for creating Azure Cognitive Services resources programmatically.

```
static void create_resource(CognitiveServicesManagementClient client, string
resource_name, string kind, string account_tier, string location)
{
    CognitiveServicesAccount parameters =
        new CognitiveServicesAccount(null, null, kind, location, resource_name,
new CognitiveServicesAccountProperties(), new Sku(account_tier));
    var result = client.Accounts.Create(resource_group_name, account_tier,
parameters);
}
```

You need to call the method to create a free Azure resource in the West US Azure region. The resource will be used to generate captions of images automatically.

Which code should you use?

- A. create_resource(client, "res1", "ComputerVision", "F0", "westus")
- B. create_resource(client, "res1", "CustomVision.Prediction", "F0", "westus")
- C. create_resource(client, "res1", "ComputerVision", "S0", "westus")
- D. create_resource(client, "res1", "CustomVision.Prediction", "S0", "westus")

Correct Answer: B

Many of the Cognitive Services have a free tier you can use to try the service. To use the free tier, use F0 as the SKU for your resource.

There are two tiers of keys for the Custom Vision service. You can sign up for a F0 (free) or S0 (standard) subscription through the Azure portal.

Incorrect Answers:

A: There is no free tier (F0) for ComputerVision.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/cognitive-services-apis-create-account-client-library?pivots=programming-language-csharp> <https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/limits-and-quotas>

Community vote distribution

A (81%)

B (19%)

You successfully run the following HTTP request.

POST https://management.azure.com/subscriptions/18c51a87-3a69-47a8-aedc-a54745f708a1/resourceGroups/RG1/providers/

Microsoft.CognitiveServices/accounts/contoso1/regenerateKey?api-version=2017-04-18

Body{"keyName": "Key2"}

What is the result of the request?

- A. A key for Azure Cognitive Services was generated in Azure Key Vault.
- B. A new query key was generated.
- C. The primary subscription key and the secondary subscription key were rotated.
- D. The secondary subscription key was reset.

Correct Answer: B

Accounts - Regenerate Key regenerates the specified account key for the specified Cognitive Services account.

Syntax:

POST

https://management.azure.com/subscriptions/{subscriptionId}/resourceGroups/{resourceGroupName}/providers/Microsoft.CognitiveServices/accounts/

{accountName}/regenerateKey?api-version=2017-04-18

Reference:

<https://docs.microsoft.com/en-us/rest/api/cognitiveservices/accountmanagement/accounts/regeneratekey>

Community vote distribution

D (90%)

10%

You build a custom Form Recognizer model.

You receive sample files to use for training the model as shown in the following table.

Name	Type	Size
File1	PDF	20 MB
File2	MP4	100 MB
File3	JPG	20 MB
File4	PDF	100 MB
File5	GIF	1 MB
File6	JPG	40 MB

Which three files can you use to train the model? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. File1
- B. File2
- C. File3
- D. File4
- E. File5
- F. File6

Correct Answer: ACF

Input requirements -

Form Recognizer works on input documents that meet these requirements:

Format must be JPG, PNG, PDF (text or scanned), or TIFF. Text-embedded PDFs are best because there's no possibility of error in character extraction and location.

File size must be less than 50 MB.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/form-recognizer/overview>

Community vote distribution

ACF (88%)

13%

A customer uses Azure Cognitive Search.

The customer plans to enable a server-side encryption and use customer-managed keys (CMK) stored in Azure.

What are three implications of the planned change? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. The index size will increase.
- B. Query times will increase.
- C. A self-signed X.509 certificate is required.
- D. The index size will decrease.
- E. Query times will decrease.
- F. Azure Key Vault is required.

Correct Answer: ABE

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-security-overview>

Community vote distribution

ABF (94%) 6%

You are developing a new sales system that will process the video and text from a public-facing website.

You plan to notify users that their data has been processed by the sales system.

Which responsible AI principle does this help meet?

- A. transparency
- B. fairness
- C. inclusiveness
- D. reliability and safety

Correct Answer: D

Reference:

<https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/strategy/responsible-ai>

Community vote distribution

A (93%) 5%

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You create a web app named app1 that runs on an Azure virtual machine named vm1. Vm1 is on an Azure virtual network named vnet1.

You plan to create a new Azure Cognitive Search service named service1.

You need to ensure that app1 can connect directly to service1 without routing traffic over the public internet.

Solution: You deploy service1 and a public endpoint to a new virtual network, and you configure Azure Private Link.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

The Azure Private Link should use a private endpoint, not a public endpoint.

Private Link service can be accessed from approved private endpoints in any public region.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-link-overview>

Community vote distribution

B (87%)

13%

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You plan to create a new Azure Cognitive Search service named service1.

You need to ensure that app1 can connect directly to service1 without routing traffic over the public internet.

Solution: You deploy service1 and a public endpoint, and you configure an IP firewall rule.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead deploy service1 and a private (not public) endpoint to a new virtual network, and you configure Azure Private Link.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-link-overview>

Community vote distribution

B (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You create a web app named app1 that runs on an Azure virtual machine named vm1. Vm1 is on an Azure virtual network named vnet1.

You plan to create a new Azure Cognitive Search service named service1.

You need to ensure that app1 can connect directly to service1 without routing traffic over the public internet.

Solution: You deploy service1 and a public endpoint, and you configure a network security group (NSG) for vnet1.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead deploy service1 and a private (not public) endpoint to a new virtual network, and you configure Azure Private Link.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-link-overview>

Community vote distribution

B (100%)

You plan to perform predictive maintenance.

You collect IoT sensor data from 100 industrial machines for a year. Each machine has 50 different sensors that generate data at one-minute intervals. In total, you have 5,000 time series datasets.

You need to identify unusual values in each time series to help predict machinery failures.

Which Azure service should you use?

A. Anomaly Detector

B. Cognitive Search

C. Form Recognizer

D. Custom Vision

Correct Answer: A

Community vote distribution

A (100%)

HOTSPOT -

You are developing a streaming Speech to Text solution that will use the Speech SDK and MP3 encoding.

You need to develop a method to convert speech to text for streaming MP3 data.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
var audioFormat = AudioStreamFormat.GetCompressedFormat(AudioStreamContainerFormat.MP3);  
  
var speechConfig = SpeechConfig.FromSubscription("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus");  
  
var audioConfig = AudioConfig.FromStreamInput(pushStream, audioFormat);  
  
using (var recognizer = new SpeechRecognizer(speechConfig, audioConfig))  
{  
  
    var result = await recognizer.RecognizeOnceAsync();  
  
    var text = result.Text;  
  
}
```

Correct Answer:**Answer Area**

```
var audioFormat = AudioStreamFormat.GetCompressedFormat(AudioStreamContainerFormat.MP3);  
  
var speechConfig = SpeechConfig.FromSubscription("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus");  
  
var audioConfig = AudioConfig.FromStreamInput(pushStream, audioFormat);  
  
using (var recognizer = new SpeechRecognizer(speechConfig, audioConfig))  
{  
  
    var result = await recognizer.RecognizeOnceAsync();  
  
    var text = result.Text;  
  
}
```

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/how-to-use-codec-compressed-audio-input-streams?tabs=debian&pivots=programming-language-csharp>

HOTSPOT -

You are developing an internet-based training solution for remote learners.

Your company identifies that during the training, some learners leave their desk for long periods or become distracted.

You need to use a video and audio feed from each learner's computer to detect whether the learner is present and paying attention. The solution must minimize development effort and identify each learner.

Which Azure Cognitive Services service should you use for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

From a learner's video feed, verify whether the learner is present:

Face
Speech
Text Analytics

From a learner's facial expression in the video feed, verify whether the learner is paying attention:

Face
Speech
Text Analytics

From a learner's audio feed, detect whether the learner is talking:

Face
Speech
Text Analytics

Answer Area

From a learner's video feed, verify whether the learner is present:

Face
Speech
Text Analytics

From a learner's facial expression in the video feed, verify whether the learner is paying attention:

Face
Speech
Text Analytics

Correct Answer:

From a learner's audio feed, detect whether the learner is talking:

Face
Speech
Text Analytics

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/what-are-cognitive-services>

You plan to provision a QnA Maker service in a new resource group named RG1.

In RG1, you create an App Service plan named AP1.

Which two Azure resources are automatically created in RG1 when you provision the QnA Maker service? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Language Understanding
- B. Azure SQL Database
- C. Azure Storage
- D. Azure Cognitive Search
- E. Azure App Service

Correct Answer: DE

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/set-up-qnamaker-service-azure?tabs=v1#delete-azure-resources>

Community vote distribution

DE (71%)	14%	Other
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You are building a language model by using a Language Understanding (classic) service.

You create a new Language Understanding (classic) resource.

You need to add more contributors.

What should you use?

- A. a conditional access policy in Azure Active Directory (Azure AD)
- B. the Access control (IAM) page for the authoring resources in the Azure portal
- C. the Access control (IAM) page for the prediction resources in the Azure portal

Correct Answer: B

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-how-to-collaborate>

Community vote distribution

B (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cognitive Search service.

During the past 12 months, query volume steadily increased.

You discover that some search query requests to the Cognitive Search service are being throttled.

You need to reduce the likelihood that search query requests are throttled.

Solution: You migrate to a Cognitive Search service that uses a higher tier.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A

A simple fix to most throttling issues is to throw more resources at the search service (typically replicas for query-based throttling, or partitions for indexing-based throttling). However, increasing replicas or partitions adds cost, which is why it is important to know the reason why throttling is occurring at all.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-performance-analysis>

Community vote distribution

A (100%)

DRAG DROP -

You need to develop an automated call handling system that can respond to callers in their own language. The system will support only French and English.

Which Azure Cognitive Services service should you use to meet each requirement? To answer, drag the appropriate services to the correct requirements. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Services Answer Area**Speaker Recognition****Speech to Text****Text Analytics****Text to Speech****Translator**

Detect the incoming language:

Respond in the callers' own language:

Services**Answer Area****Speaker Recognition****Speech to Text****Text Analytics****Text to Speech****Translator**

Correct Answer: Detect the incoming language:

Text Analytics

Respond in the callers' own language:

Translator**Box 1: Text Analytics -**

The Language Detection feature of the Azure Text Analytics REST API evaluates text input for each document and returns language identifiers with a score that indicates the strength of the analysis.

Incorrect Answers:

Speaker Recognition which accurately verifies and identifies speakers by their unique voice characteristics.

Box 2: Translator -

Translator is a cloud-based neural machine translation service that is part of the Azure Cognitive Services family of REST APIs. Translator can be used with any operating system and powers many Microsoft products and services used by thousands of businesses worldwide to perform language translation and other language-related operations.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-language-detection>

<https://docs.microsoft.com/en-us/azure/cognitive-services/translator/translator-overview>

You have receipts that are accessible from a URL.

You need to extract data from the receipts by using Form Recognizer and the SDK. The solution must use a prebuilt model.

Which client and method should you use?

- A. the FormRecognizerClient client and the StartRecognizeContentFromUri method
- B. the FormTrainingClient client and the StartRecognizeContentFromUri method
- C. the FormRecognizerClient client and the StartRecognizeReceiptsFromUri method
- D. the FormTrainingClient client and the StartRecognizeReceiptsFromUri method

Correct Answer: D

To analyze receipts from a URL, use the StartRecognizeReceiptsFromUri method

Example code:

```
private static async Task AnalyzeReceipt(  
    FormRecognizerClient recognizerClient, string receiptUri)  
{  
    RecognizedFormCollection receipts = await recognizerClient.StartRecognizeReceiptsFromUri(new Uri(receiptUrl)).WaitForCompletionAsync();
```

Reference:

<https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/quickstarts/client-library>

Community vote distribution

C (100%)

You have a collection of 50,000 scanned documents that contain text.

You plan to make the text available through Azure Cognitive Search.

You need to configure an enrichment pipeline to perform optical character recognition (OCR) and text analytics. The solution must minimize costs.

What should you attach to the skillset?

- A. a new Computer Vision resource
- B. a free (Limited enrichments) Cognitive Services resource
- C. an Azure Machine Learning Designer pipeline
- D. a new Cognitive Services resource that uses the S0 pricing tier

Correct Answer: A

The Computer Vision API uses text recognition APIs to extract and recognize text information from images. Read uses the latest recognition models, and is optimized for large, text-heavy documents and noisy images.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/solution-ideas/articles/cognitive-search-with-skillsets>

Community vote distribution

D (91%)

7%

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cognitive Search service.

During the past 12 months, query volume steadily increased.

You discover that some search query requests to the Cognitive Search service are being throttled.

You need to reduce the likelihood that search query requests are throttled.

Solution: You add indexes.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead, you could migrate to a Cognitive Search service that uses a higher tier.

Note: A simple fix to most throttling issues is to throw more resources at the search service (typically replicas for query-based throttling, or partitions for indexing-based throttling). However, increasing replicas or partitions adds cost, which is why it is important to know the reason why throttling is occurring at all.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-performance-analysis>

Community vote distribution

B (84%)

A (16%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cognitive Search service.

During the past 12 months, query volume steadily increased.

You discover that some search query requests to the Cognitive Search service are being throttled.

You need to reduce the likelihood that search query requests are throttled.

Solution: You enable customer-managed key (CMK) encryption.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Customer-managed key (CMK) encryption does not affect throttling.

Instead, you could migrate to a Cognitive Search service that uses a higher tier.

Note: A simple fix to most throttling issues is to throw more resources at the search service (typically replicas for query-based throttling, or partitions for indexing-based throttling). However, increasing replicas or partitions adds cost, which is why it is important to know the reason why throttling is occurring at all.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-performance-analysis>

Community vote distribution

B (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You create a web app named app1 that runs on an Azure virtual machine named vm1. Vm1 is on an Azure virtual network named vnet1.

You plan to create a new Azure Cognitive Search service named service1.

You need to ensure that app1 can connect directly to service1 without routing traffic over the public internet.

Solution: You deploy service1 and a private endpoint to vnet1.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A

A private endpoint is a network interface that uses a private IP address from your virtual network. This network interface connects you privately and securely to a service powered by Azure Private Link. By enabling a private endpoint, you're bringing the service into your virtual network.

The service could be an Azure service such as:

- Azure Storage
- Azure Cosmos DB
- Azure SQL Database
- Your own service using a Private Link Service.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-endpoint-overview>

Community vote distribution

A (100%)

You have a Language Understanding resource named lu1.

You build and deploy an Azure bot named bot1 that uses lu1.

You need to ensure that bot1 adheres to the Microsoft responsible AI principle of inclusiveness.

How should you extend bot1?

- A. Implement authentication for bot1.
- B. Enable active learning for lu1.
- C. Host lu1 in a container.
- D. Add Direct Line Speech to bot1.

Correct Answer: D

Inclusiveness: AI systems should empower everyone and engage people.

Direct Line Speech is a robust, end-to-end solution for creating a flexible, extensible voice assistant. It is powered by the Bot Framework and its Direct Line

Speech channel, that is optimized for voice-in, voice-out interaction with bots.

Incorrect:

Not B: The Active learning suggestions feature allows you to improve the quality of your knowledge base by suggesting alternative questions, based on user submissions, to your question and answer pair. You review those suggestions, either adding them to existing questions or rejecting them.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/direct-line-speech>

Community vote distribution

D (94%)

6%

HOTSPOT -

You are building an app that will process incoming email and direct messages to either French or English language support teams.

Which Azure Cognitive Services API should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

<https://>

api.cognitive.microsofttranslator.com
eastus.api.cognitive.microsoft.com
portal.azure.com

[/text/analytics/v3.1/entities/recognition/general](https://text/analytics/v3.1/entities/recognition/general)
[/text/analytics/v3.1/languages](https://text/analytics/v3.1/languages)
[/translator/text/v3.0/translate?to=en](https://translator/text/v3.0/translate?to=en)
[/translator/text/v3.0/translate?to=fr](https://translator/text/v3.0/translate?to=fr)

Correct Answer:**Answer Area**

<https://>

api.cognitive.microsofttranslator.com
eastus.api.cognitive.microsoft.com
portal.azure.com

[/text/analytics/v3.1/entities/recognition/general](https://text/analytics/v3.1/entities/recognition/general)
[/text/analytics/v3.1/languages](https://text/analytics/v3.1/languages)
[/translator/text/v3.0/translate?to=en](https://translator/text/v3.0/translate?to=en)
[/translator/text/v3.0/translate?to=fr](https://translator/text/v3.0/translate?to=fr)

Box 1: api.cognitive.microsofttranslator.com is used for translations.

Incorrect:

eastus.api.cognitive.microsoft.com is used for Face recognition.

[Portal.azure.com](https://portal.azure.com) is the URL of the Azure portal which is a web-based, unified console that provides an alternative to command-line tools. With the Azure portal, you can manage your Azure subscription using a graphical user interface. You can build, manage, and monitor everything from simple web apps to complex cloud deployments.

Box 2: [/text/analytics/v3.1/entities/recognition/general](https://text/analytics/v3.1/entities/recognition/general)

Named Entity Recognition -

The API returns a list of general named entities in a given document.

Request URL: [https://{endpoint}/text/analytics/v3.1/entities/recognition/general\[?model-version\]\[&showStats\]\[&loggingOptOut\]\[&stringIndexType\]](https://{endpoint}/text/analytics/v3.1/entities/recognition/general[?model-version][&showStats][&loggingOptOut][&stringIndexType])

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-translate>

<https://westcentralus.dev.cognitive.microsoft.com/docs/services/TextAnalytics-v3-1/operations/EntitiesRecognitionGeneral>

You have an Azure Cognitive Search instance that indexes purchase orders by using Form Recognizer.

You need to analyze the extracted information by using Microsoft Power BI. The solution must minimize development effort.

What should you add to the indexer?

- A. a projection group
- B. a table projection
- C. a file projection
- D. an object projection

Correct Answer: D

Projections are the physical tables, objects, and files in a knowledge store that accept content from a Cognitive Search AI enrichment pipeline.

If you're creating a knowledge store, defining and shaping projections is most of the work.

Objects is used when you need the full JSON representation of your data and enrichments in one JSON document. As with table projections, only valid JSON objects can be projected as objects, and shaping can help you do that.

Note: Form Recognizer analyzes your forms and documents, extracts text and data, maps field relationships as key-value pairs, and returns a structured JSON output. You quickly get accurate results that are tailored to your specific content without excessive manual intervention or extensive data science expertise.

Incorrect:

Not Tables: Tables is used for data that's best represented as rows and columns, or whenever you need granular representations of your data (for example, as data frames). Table projections allow you to define a schematized shape, using a Shaper skill or use inline shaping to specify columns and rows.

Not File: File is used when you need to save normalized, binary image files.

Reference:

<https://docs.microsoft.com/en-us/azure/search/knowledge-store-projection-overview>

Community vote distribution

B (89%) 11%

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cognitive Search service.

During the past 12 months, query volume steadily increased.

You discover that some search query requests to the Cognitive Search service are being throttled.

You need to reduce the likelihood that search query requests are throttled.

Solution: You add replicas.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

A simple fix to most throttling issues is to throw more resources at the search service (typically replicas for query-based throttling, or partitions for indexing-based throttling). However, increasing replicas or partitions adds cost, which is why it is important to know the reason why throttling is occurring at all.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-performance-analysis>

Community vote distribution

A (100%)

SIMULATION -

You need to create a Text Analytics service named Text12345678, and then enable logging for Text12345678. The solution must ensure that any changes to Text12345678 will be stored in a Log Analytics workspace.

To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Step 1: Sign in to the QnA portal.

Step 2: Create an Azure Cognitive multi-service resource:



Step 3: On the Create page, provide the following information.

Name: Text12345678 -

Create Cognitive Services

X

Basics Tags Review + create

Get access to Vision, Language, Search, and Speech Cognitive Services with a single API key. Quickly connect services together to achieve more insights into your content and easily integrate with other services like Azure Search. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ

[Create new](#)

Instance details

Region * ⓘ



Location specifies the region only for included regional services. This does not specify a region for included non-regional services. [Click here for more details.](#)

Name * ⓘ

✓

Pricing tier * ⓘ

[View full pricing details](#)

By checking this box, I certify that use of this service is not by or for a police department in the United States.

I confirm I have read and understood the notice below.

[Review + create](#)

< Previous

Next : Tags >

Step 4: Configure additional settings for your resource as needed, read and accept the conditions (as applicable), and then select Review + create.

Step 5: Navigate to the Azure portal. Then locate and select The Text Analytics service resource Text12345678 (which you created in Step 4).

Step 6: Next, from the left-hand navigation menu, locate Monitoring and select Diagnostic settings. This screen contains all previously created diagnostic settings for this resource.

Step 7: Select + Add diagnostic setting.

Step 8: When prompted to configure, select the storage account and OMS workspace that you'd like to use to store your diagnostic logs. Note: If you don't have a storage account or OMS workspace, follow the prompts to create one.

Step 9: Select Audit, RequestResponse, and AllMetrics. Then set the retention period for your diagnostic log data. If a retention policy is set to zero, events for that log category are stored indefinitely.

Step 10: Click Save.

It can take up to two hours before logging data is available to query and analyze. So don't worry if you don't see anything right away.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/cognitive-services-apis-create-account> <https://docs.microsoft.com/en-us/azure/cognitive-services/diagnostic-logging>

SIMULATION -

You need to create a search service named search12345678 that will index a sample Azure Cosmos DB database named hotels-sample. The solution must ensure that only English language fields are retrievable.

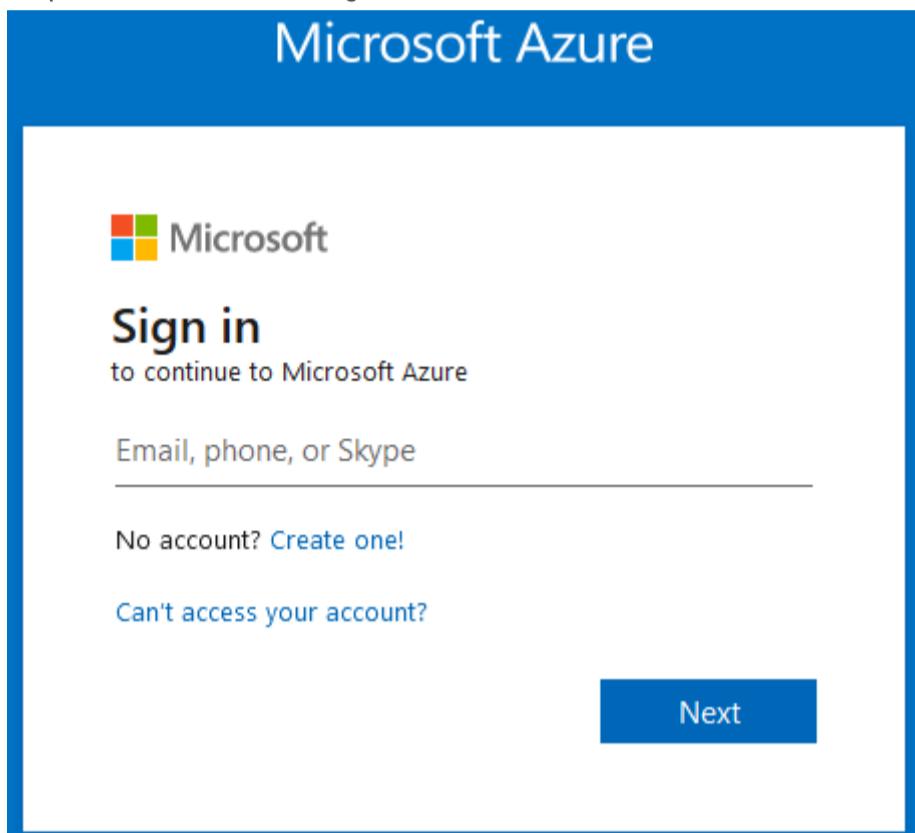
To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Part 1: Create a search service search12345678

Step 1: Sign in to the QnA portal.

Step 2: Create an Azure Cognitive multi-service resource:



Step 3: On the Create page, provide the following information.

Name: search12345678 -

Create Cognitive Services

X

Basics Tags Review + create

Get access to Vision, Language, Search, and Speech Cognitive Services with a single API key. Quickly connect services together to achieve more insights into your content and easily integrate with other services like Azure Search. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ [Create new](#)

Instance details

Region * ⓘ

 Location specifies the region only for included regional services. This does not specify a region for included non-regional services. [Click here for more details.](#)

Name * ⓘ 

Pricing tier * ⓘ

[View full pricing details](#)

By checking this box, I certify that use of this service is not by or for a police department in the United States.

I confirm I have read and understood the notice below.

[Review + create](#)

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Step 4: Click Review + create -

Part 2: Start the Import data wizard and create a data source

Step 5: Click Import data on the command bar to create and populate a search index.

   Refresh Delete Move

Step 6: In the wizard, click Connect to your data > Samples > hotels-sample. This data source is built-in. If you were creating your own data source, you would need to specify a name, type, and connection information. Once created, it becomes an "existing data source" that can be reused in other import operations.

Home > Microsoft.Search - Overview > my-new-search-service > Import data

Import data

Connect to your data Enrich content (Optional) Customize target index Create an indexer

Create and load a search index using data from an existing Azure data source in your current subscription. Azure Cognitive Search crawls the data structure you provide, extracts searchable content, optionally enriches it with cognitive skills, and loads it into an index. [Learn more](#)

Data Source	① <input type="text" value="Samples"/>
Type	② <input type="text" value="hotels-sample"/>
	Name realestate-us-sample

Step 7: Continue to the next page.

Step 8: Skip the "Enrich content" page

Step 9: Configure index.

Make sure English is selected for the fields.

Import data

Connect to your data Enrich content (Optional) **Customize target index *** Create an indexer

We provided a default index for you. You can delete the fields you don't need. Everything is editable, but once the index is built, deleting or changing existing fields will require re-indexing your documents.

Index name *

hotels-sample-index

Key *

HotelId

Suggester name

sq

Search mode

+ Add field + Add subfield

Field name	Type	Retrievable	Filterable	Sortable	Facetable	Searchable	Analyzer	Suggester
HotelId	Edm.String	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HotelName	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Description	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Step 10: Continue and finish the wizard.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/cognitive-services-apis-create-account> <https://docs.microsoft.com/en-us/azure/search/search-get-started-portal>

SIMULATION -

You plan to create a solution to generate captions for images that will be read from Azure Blob Storage.

You need to create a service in Azure Cognitive Services for the solution. The service must be named captions12345678 and must use the Free pricing tier.

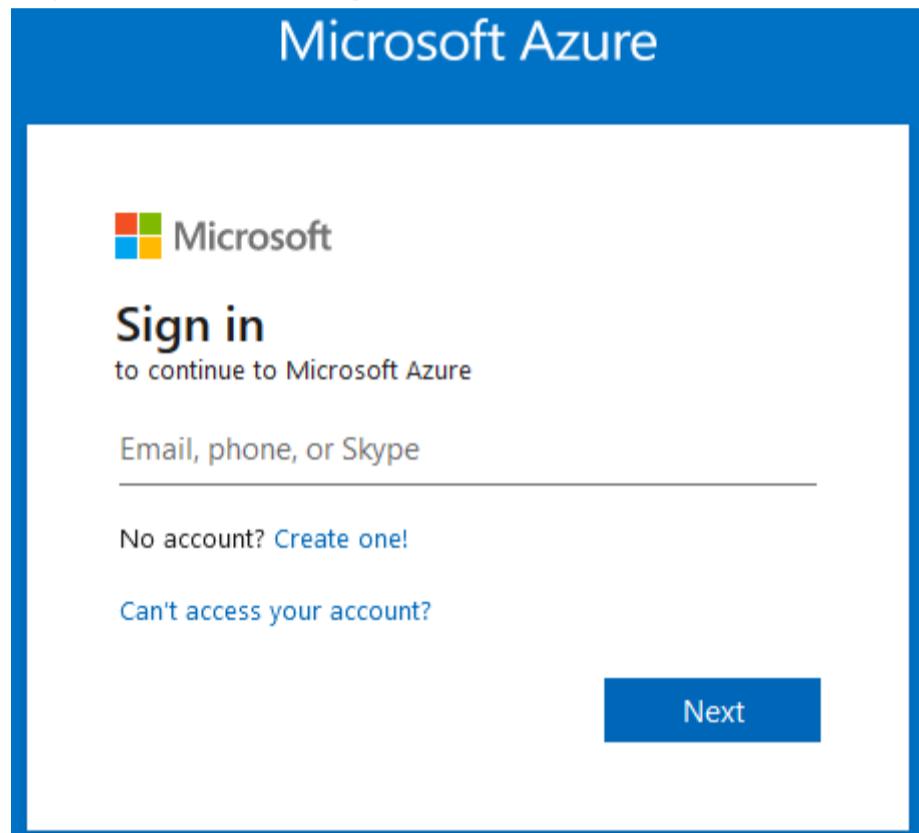
To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Part 1: Create a search service captions12345678

Step 1: Sign in to the QnA portal.

Step 2: Create an Azure Cognitive multi-service resource:



Step 3: On the Create page, provide the following information.

Name: captions12345678

Pricing tier: Free

Create Cognitive Services

X

Basics Tags Review + create

Get access to Vision, Language, Search, and Speech Cognitive Services with a single API key. Quickly connect services together to achieve more insights into your content and easily integrate with other services like Azure Search. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ

[Create new](#)

Instance details

Region * ⓘ



Location specifies the region only for included regional services. This does not specify a region for included non-regional services. [Click here for more details.](#)



Name * ⓘ

✓

Pricing tier * ⓘ

[View full pricing details](#)

By checking this box, I certify that use of this service is not by or for a police department in the United States.

I confirm I have read and understood the notice below.

[Review + create](#)

[< Previous](#)

[Next : Tags >](#)

Step 4: Click Review + create -

(Step 5: Create a data source

In Connect to your data, choose Azure Blob Storage. Choose an existing connection to the storage account and container you created. Give the data source a name, and use default values for the rest.)

Dashboard >

Import data

X

*Connect to your data

[Add cognitive skills \(Optional\)](#)[Customize target index](#)[Create an indexer](#)

Create and load a search index using data from an external data source. Azure Cognitive Search crawls the data structure you provide, extracts searchable content, optionally enriches it with cognitive skills, and loads it into an index. [Learn more](#)

Data Source



Azure Blob Storage



Data source name *

signs



Data to extract ⓘ

Content and metadata



Parsing mode

Default



Connection string *



DefaultEndpointsProtocol=https;AccountName=

[Choose an existing connection](#) Authenticate using managed identity ⓘ

Container name * ⓘ



signs



Blob folder ⓘ

your/folder/here

Description

(optional)

[Next: Add cognitive skills \(Optional\)](#)

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-create-service-portal> <https://docs.microsoft.com/en-us/azure/search/cognitive-search-quickstart-ocr>

SIMULATION -

You need to create a Form Recognizer resource named fr12345678.

Use the Form Recognizer sample labeling tool at <https://fott-2-1.azurewebsites.net/> to analyze the invoice located in the C:\Resources\Invoices folder.

Save the results as C:\Resources\Invoices\Results.json.

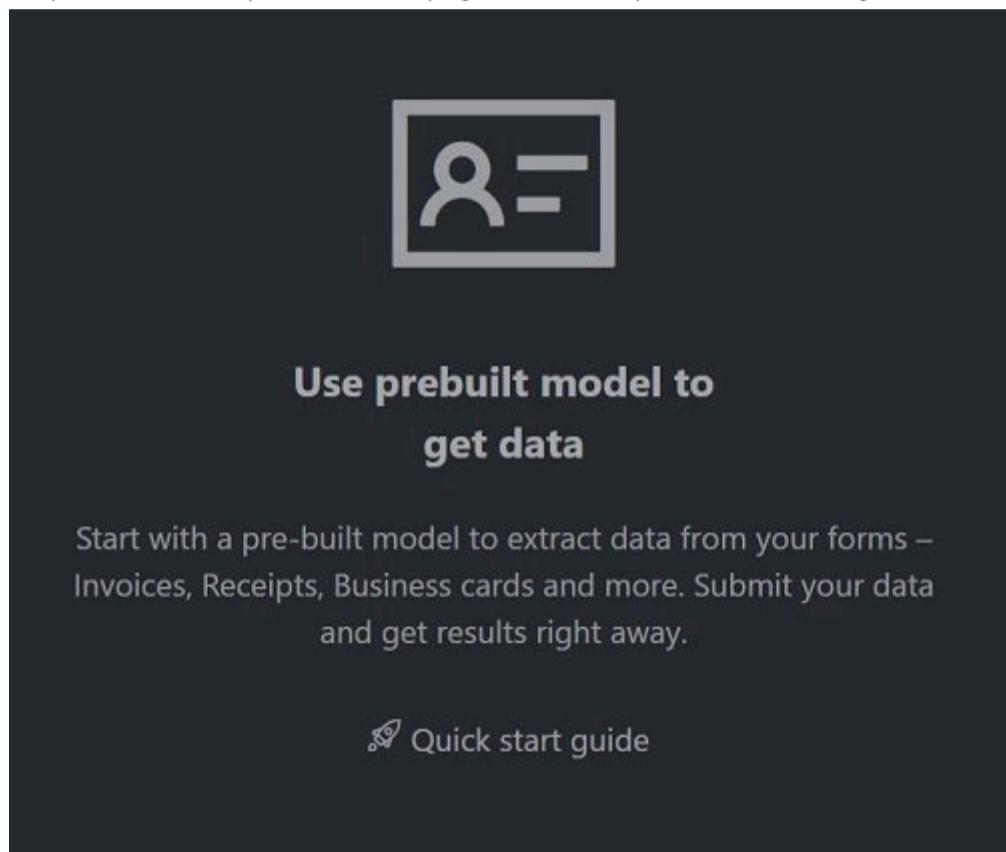
To complete this task, sign in to the Azure portal and open the Form Recognizer sample labeling tool.

Correct Answer: See explanation below.

Step 1: Sign in to the Azure Portal.

Step 2: Navigate to the Form Recognizer Sample Tool (at <https://fott-2-1.azurewebsites.net/>)

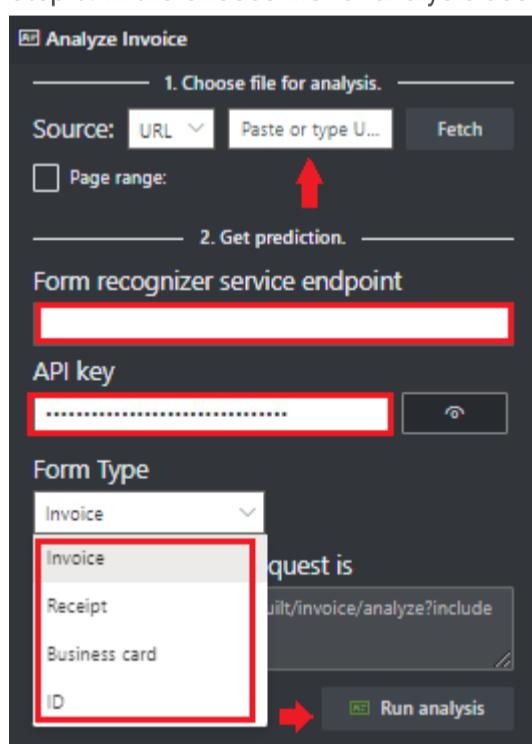
Step 3: On the sample tool home page select Use prebuilt model to get data.



Step 4: Select the Form Type you would like to analyze from the dropdown window.

Step 5: In the Source: URL field, paste the selected URL and select the Fetch button.

Step 6: In the Choose file for analysis use the file in the C:\Resources\Invoices folder and select the Fetch button.



Step 7: Select Run analysis. The Form Recognizer Sample Labeling tool will call the Analyze Prebuilt API and analyze the document.

Step 8: View the results - see the key-value pairs extracted, line items, highlighted text extracted and tables detected.

The screenshot shows the Microsoft Form Recognizer interface. On the left, there's a preview of the input document, which is an invoice from 'CONTOSO LTD.' to 'Microsoft Corp'. The invoice details include shipping and service addresses, a table of items with descriptions like 'Consulting services' and 'Document Fee', and a summary table at the bottom. On the right, the 'Prediction results' pane displays a list of extracted fields with their values and confidence scores. Fields include 'AmountDue' (text: '\$610.00', confidence: 96.80%), 'BillingAddress' (text: '123 Bill St, Redmond WA, 98052', confidence: 95.10%), and 'CustomerName' (text: 'MICROSOFT CORPORATION', confidence: 94.60%). Other listed fields include 'CustomerAddress', 'CustomerAddressRecipient', 'Customerid', 'CustomerName', 'DueDate', 'InvoiceDate', 'Invoicenumber', 'InvoiceTotal', 'PO-5333', and 'RemittanceAddress'.

Step 9: Save the results as C:\Resources\Invoices\Results.json.

Reference:

<https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/quickstarts/try-sample-label-tool>

Question #37

Topic 1

You have a factory that produces food products.

You need to build a monitoring solution for staff compliance with personal protective equipment (PPE) requirements. The solution must meet the following requirements:

- * Identify staff who have removed masks or safety glasses.
- * Perform a compliance check every 15 minutes.
- * Minimize development effort.
- * Minimize costs.

Which service should you use?

- A. Face
- B. Computer Vision
- C. Azure Video Analyzer for Media (formerly Video Indexer)

Correct Answer: A

Face API is an AI service that analyzes faces in images.

Embed facial recognition into your apps for a seamless and highly secured user experience. No machine-learning expertise is required.

Features include face detection that perceives facial features and attributes such as a face mask, glasses, or face location in an image, and identification of a person by a match to your private repository or via photo ID.

Reference:

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

Community vote distribution

A (56%) B (28%) C (17%)

You have an Azure Cognitive Search solution and a collection of blog posts that include a category field.

You need to index the posts. The solution must meet the following requirements:

- * Include the category field in the search results.
- * Ensure that users can search for words in the category field.
- * Ensure that users can perform drill down filtering based on category.

Which index attributes should you configure for the category field?

- A. searchable, sortable, and retrievable
- B. searchable, facetable, and retrievable
- C. retrievable, filterable, and sortable
- D. retrievable, facetable, and key

Correct Answer: C

Fields have data types and attributes. The check boxes across the top are index attributes controlling how the field is used.

* Retrievable means that it shows up in search results list. You can mark individual fields as off limits for search results by clearing this checkbox, for example for fields used only in filter expressions.

* Filterable, Sortable, and Facetable determine whether fields are used in a filter, sort, or faceted navigation structure.

* Searchable means that a field is included in full text search. Strings are searchable. Numeric fields and Boolean fields are often marked as not searchable.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-get-started-portal>

Community vote distribution

B (96%)

4%

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You plan to build an API that will identify whether an image includes a Microsoft Surface Pro or Surface Studio.

You need to deploy a service in Azure Cognitive Services for the API. The service must be named AAA12345678 and must be in the East US Azure region. The solution must use the Free pricing tier.

To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Step 1: In the Azure dashboard, click Create a resource.

Step 2: In the search bar, type "Cognitive Services."

You'll get information about the cognitive services resource and a legal notice. Click Create.

Step 3: You'll need to specify the following details about the cognitive service (refer to the image below for a completed example of this page):

Subscription: choose your paid or trial subscription, depending on how you created your Azure account.

Resource group: click create new to create a new resource group or choose an existing one.

Region: choose the Azure region for your cognitive service. Choose: East US Azure region.

Name: choose a name for your cognitive service. Enter: AAA12345678

Pricing Tier: Select: Free pricing tier



listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Basics

Subscription	Visual Studio Enterprise Subscription
Resource group	ocr-rg
Region	West Europe
Name	ocr-cognitive-service
Pricing tier	Standard S0

Identity

Identity type	None
---------------	------

[Create](#)[< Previous](#)[Next](#)[Download a template for automation](#)

Step 4: Review and create the resource, and wait for deployment to complete. Then go to the deployed resource.

Note: The Computer Vision Image Analysis service can extract a wide variety of visual features from your images. For example, it can determine whether an image contains adult content, find specific brands or objects, or find human faces.

Tag visual features -

Identify and tag visual features in an image, from a set of thousands of recognizable objects, living things, scenery, and actions. When the tags are ambiguous or not common knowledge, the API response provides hints to clarify the context of the tag. Tagging isn't limited to the main subject, such as a person in the foreground, but also includes the setting (indoor or outdoor), furniture, tools, plants, animals, accessories, gadgets, and so on.

Try out the image tagging features quickly and easily in your browser using Vision Studio.

Reference:

<https://docs.microsoft.com/en-us/learn/modules/analyze-images-computer-vision/3-analyze-images> <https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-image-analysis>

Question #40

Topic 1

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to build an API that uses the service in Azure Cognitive Services named AAA12345678 to identify whether an image includes a Microsoft Surface Pro or

Surface Studio.

To achieve this goal, you must use the sample images in the C:\Resources\Images folder.

To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Step 1: In the Azure dashboard, click Create a resource.

Step 2: In the search bar, type "Cognitive Services."

You'll get information about the cognitive services resource and a legal notice. Click Create.

Step 3: You'll need to specify the following details about the cognitive service (refer to the image below for a completed example of this page):

Subscription: choose your paid or trial subscription, depending on how you created your Azure account.

Resource group: click create new to create a new resource group or choose an existing one.

Region: choose the Azure region for your cognitive service. Choose: East US Azure region.

Name: choose a name for your cognitive service. Enter: AAA12345678

Pricing Tier: Select: Free pricing tier

Step 4: Review and create the resource, and wait for deployment to complete. Then go to the deployed resource.

Note: The Computer Vision Image Analysis service can extract a wide variety of visual features from your images. For example, it can determine whether an image contains adult content, find specific brands or objects, or find human faces.

Tag visual features -

Identify and tag visual features in an image, from a set of thousands of recognizable objects, living things, scenery, and actions. When the tags are ambiguous or not common knowledge, the API response provides hints to clarify the context of the tag. Tagging isn't limited to the main subject, such as a person in the foreground, but also includes the setting (indoor or outdoor), furniture, tools, plants, animals, accessories, gadgets, and so on.

Try out the image tagging features quickly and easily in your browser using Vision Studio.

Reference:

<https://docs.microsoft.com/en-us/learn/modules/analyze-images-computer-vision/3-analyze-images> <https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-image-analysis>

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to get insights from a video file located in the C:\Resources\Video\Media.mp4 folder.

Save the insights to the C:\Resources\Video\Insights.json folder.

To complete this task, sign in to the Azure Video Analyzer for Media at <https://www.videoindexer.ai/> by using admin@abc.com

Correct Answer: See explanation below.

Step 1: Login -

Browse to the Azure Video Indexer website and sign in.

URL: <https://www.videoindexer.ai/>

Login admin@abc.com -

Step 2: Create a project from your video

You can create a new project directly from a video in your account.

1. Go to the Library tab of the Azure Video Indexer website.

2. Open the video that you want to use to create your project. On the insights and timeline page, select the Video editor button.

Folder: C:\Resources\Video\Media.mp4

This takes you to the same page that you used to create a new project. Unlike the new project, you see the timestamped insights segments of the video, that you had started editing previously.

Step 3: Save the insights to the C:\Resources\Video\Insights.json folder.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-video-indexer/use-editor-create-project>

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You plan to analyze stock photography and automatically generate captions for the images.

You need to create a service in Azure to analyze the images. The service must be named caption12345678 and must be in the East US Azure region. The solution must use the Free pricing tier.

In the C:\Resources\Caption\Params.json folder, enter the value for Key 1 and the endpoint for the new service.

To complete this task, sign in to the Azure portal.

Correct Answer: 7½ *See explanation below.*

Step 1: Provision a Cognitive Services resource

If you don't already have one in your subscription, you'll need to provision a Cognitive Services resource.

1. Open the Azure portal at <https://portal.azure.com>, and sign in using the Microsoft account associated with your Azure subscription.

2. Select the Create a resource button, search for cognitive services, and create a Cognitive Services resource with the following settings:

Subscription: Your Azure subscription

Resource group: Choose or create a resource group (if you are using a restricted subscription, you may not have permission to create a new resource group - use the one provided)

Region: East US Azure region -

Name: caption12345678 -

Pricing tier: Free F0 -

3. Select the required checkboxes and create the resource.

Wait for deployment to complete, and then view the deployment details.

4. When the resource has been deployed, go to it and view its Keys and Endpoint page. You will need the endpoint and one of the keys from this page in the next procedure.

Step 2: Save Key and Endpoint values in Params.json

Open the configuration file, C:\Resources\Caption\Params.json. and update the configuration values it contains to reflect the endpoint and an authentication key for your cognitive services resource. Save your changes.

Reference:

<https://microsoftlearning.github.io/AI-102-AIEngineer/Instructions/15-computer-vision.html>

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You plan to build an application that will use caption12345678. The application will be deployed to a virtual network named VNet1.

You need to ensure that only virtual machines on VNet1 can access caption12345678.

To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Step 1: Create private endpoint for your web app

1. In the left-hand menu, select All Resources > caption12345678 - the name of your web app.
2. In the web app overview, select Settings > Networking.
3. In Networking, select Private endpoints.
4. Select + Add in the Private Endpoint connections page.
5. Enter or select the following information in the Add Private Endpoint page:

Name: Enter caption12345678.

Subscription Select your Azure subscription.

Virtual network Select VNet1.

Subnet: -

Integrate with private DNS zone: Select Yes.

6. Select OK.

Add Private Endpoint

X

Name *

mywebappendpoint ✓

Subscription *

contoso subscription ▾

Virtual network *

myVNet ▾

Subnet *

mySubnet ▾

i If you have a network security group (NSG) enabled for the subnet above, it will be disabled for private endpoints on this subnet only. Other resources on the subnet will still have NSG enforcement.

Integrate with private DNS zone ⓘ

No Yes

i Your private endpoint will be integrated with the private DNS zone 'privatelink.azurewebsites.net' in the resource group of the selected subnet. If the private DNS zone does not exist, it will be created automatically. [Learn more](#)

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/tutorial-private-endpoint-webapp-portal>

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to ensure that a user named admin@abc.com can regenerate the subscription keys of AAA12345678. The solution must use the principle of least privilege.

To complete this task, sign in to the Azure portal.

Correct Answer: *See explanation below.*

Manually rotate subscription keys

1. (Update your application code to reference the secondary key for the Azure account and deploy.)
2. In the Azure portal, navigate to your Azure account.
3. Under Settings, select Authentication.
4. To regenerate the primary key for your Azure account, select the Regenerate button next to the primary key.
5. (Update your application code to reference the new primary key and deploy.)
6. Regenerate the secondary key in the same manner.

Reference:

<https://github.com/MicrosoftDocs/azure-docs/blob/main/articles/azure-maps/how-to-manage-authentication.md>

You have an Azure IoT hub that receives sensor data from machinery.

You need to build an app that will perform the following actions:

- Perform anomaly detection across multiple correlated sensors.
- Identify the root cause of process stops.
- Send incident alerts.

The solution must minimize development time.

Which Azure service should you use?

- A. Azure Metrics Advisor
- B. Form Recognizer
- C. Azure Machine Learning
- D. Anomaly Detector

Correct Answer: D

Community vote distribution

A (96%)

4%

You have an app that analyzes images by using the Computer Vision API.

You need to configure the app to provide an output for users who are vision impaired. The solution must provide the output in complete sentences.

Which API call should you perform?

- A. readInStreamAsync
- B. analyzeImagesByDomainInStreamAsync
- C. tagImageInStreamAsync
- D. describeImageInStreamAsync

Correct Answer: D

Community vote distribution

D (100%)

DRAG DROP

You have a Custom Vision service project that performs object detection. The project uses the General domain for classification and contains a trained model.

You need to export the model for use on a network that is disconnected from the internet.

Which three 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.

Actions

- Change the classification type.
- Export the model.
- Retrain the model.
- Change Domains to **General (compact)**.
- Create a new classification model.

Answer Area



Answer Area

- Change Domains to **General (compact)**.
- Retrain the model.
- Export the model.

Correct Answer:

You are building an AI solution that will use Sentiment Analysis results from surveys to calculate bonuses for customer service staff.

You need to ensure that the solution meets the Microsoft responsible AI principles.

What should you do?

- A. Add a human review and approval step before making decisions that affect the staff's financial situation.
- B. Include the Sentiment Analysis results when surveys return a low confidence score.
- C. Use all the surveys, including surveys by customers who requested that their account be deleted and their data be removed.
- D. Publish the raw survey data to a central location and provide the staff with access to the location.

Correct Answer: A

Community vote distribution

A (100%)

You have an Azure subscription that contains a Language service resource named ta1 and a virtual network named vnet1.

You need to ensure that only resources in vnet1 can access ta1.

What should you configure?

- A. a network security group (NSG) for vnet1
- B. Azure Firewall for vnet1
- C. the virtual network settings for ta1
- D. a Language service container for ta1

Correct Answer: C

Community vote distribution

C (100%)

You are developing a monitoring system that will analyze engine sensor data, such as rotation speed, angle, temperature, and pressure. The system must generate an alert in response to atypical values.

What should you include in the solution?

- A. Application Insights in Azure Monitor
- B. metric alerts in Azure Monitor
- C. Multivariate Anomaly Detection
- D. Univariate Anomaly Detection

Correct Answer: C

Community vote distribution

C (87%) 13%

You have an app named App1 that uses an Azure Cognitive Services model to identify anomalies in a time series data stream.

You need to run App1 in a location that has limited connectivity. The solution must minimize costs.

What should you use to host the model?

- A. Azure Kubernetes Service (AKS)
- B. Azure Container Instances
- C. a Kubernetes cluster hosted in an Azure Stack Hub integrated system
- D. the Docker Engine

Correct Answer: C

Community vote distribution

B (61%) D (26%) 13%

HOTSPOT

You have an Azure Cognitive Search resource named Search1 that is used by multiple apps.

You need to secure Search1. The solution must meet the following requirements:

- Prevent access to Search1 from the internet.
- Limit the access of each app to specific queries.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

To prevent access from the internet:

- Configure an IP firewall.
- Create a private endpoint.
- Use Azure roles.

To limit access to queries:

- Create a private endpoint.
- Use Azure roles.
- Use key authentication.

Answer Area

To prevent access from the internet:

- Configure an IP firewall.
- Create a private endpoint.
- Use Azure roles.

Correct Answer:

To limit access to queries:

- Create a private endpoint.
- Use Azure roles.
- Use key authentication.

You are building a solution that will detect anomalies in sensor data from the previous 24 hours.

You need to ensure that the solution scans the entire dataset, at the same time, for anomalies.

Which type of detection should you use?

- A. batch
- B. streaming
- C. change points

Correct Answer: A

Community vote distribution

A (100%)

DRAG DROP

You are building an app that will scan confidential documents and use the Language service to analyze the contents.

You provision an Azure Cognitive Services resource.

You need to ensure that the app can make requests to the Language service endpoint. The solution must ensure that confidential documents remain on-premises.

Which three 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.

Actions
Run the container and specify an App ID and Client Secret.
Provision an on-premises Kubernetes cluster that is isolated from the internet.
Pull an image from the Microsoft Container Registry (MCR).
Run the container and specify an API key and the Endpoint URL of the Cognitive Services resource.
Provision an on-premises Kubernetes cluster that has internet connectivity.
Pull an image from Docker Hub.
Provision an Azure Kubernetes Service (AKS) resource.

Answer Area



Answer Area
Pull an image from the Microsoft Container Registry (MCR).
Provision an on-premises Kubernetes cluster that is isolated from the internet.
Run the container and specify an API key and the Endpoint URL of the Cognitive Services resource.

Correct Answer:

HOTSPOT

You have an Azure subscription that has the following configurations:

- Subscription ID: 8d3591aa-96b8-4737-ad09-00f9b1ed35ad
- Tenant ID: 3edfe572-cb54-3ced-ae12-c5c177f39a12

You plan to create a resource that will perform sentiment analysis and optical character recognition (OCR).

You need to use an HTTP request to create the resource in the subscription. The solution must use a single key and endpoint.

How should you complete the request? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

The screenshot shows the Azure Management Portal interface. A dropdown menu is open under the 'Provider' section. The menu contains the following items:
subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12
subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad
tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12
tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad
/accounts/CS1?api-version=2021-10-01
Microsoft.ApiManagement
Microsoft.CognitiveServices
Microsoft.ContainerService
Microsoft.KeyVault

Correct Answer:

The screenshot shows the Azure Management Portal interface. A dropdown menu is open under the 'Provider' section. The menu contains the following items:
subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12
subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad
tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12
tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad
/accounts/CS1?api-version=2021-10-01
Microsoft.ApiManagement
Microsoft.CognitiveServices
Microsoft.ContainerService
Microsoft.KeyVault

You have an Azure subscription that contains an Anomaly Detector resource.

You deploy a Docker host server named Server1 to the on-premises network.

You need to host an instance of the Anomaly Detector service on Server1.

Which parameter should you include in the docker run command?

- A. Fluentd
- B. Billing
- C. Http Proxy
- D. Mounts

Correct Answer: B

Community vote distribution

B (81%)

D (19%)

You are building an app that will use the Speech service.

You need to ensure that the app can authenticate to the service by using a Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, token.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Enable a virtual network service endpoint.
- B. Configure a custom subdomain.
- C. Request an X.509 certificate.
- D. Create a private endpoint.
- E. Create a Conditional Access policy.

Correct Answer: CE

Community vote distribution

BD (59%)	BE (35%)	5%
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HOTSPOT

You plan to deploy an Azure OpenAI resource by using an Azure Resource Manager (ARM) template.

You need to ensure that the resource can respond to 600 requests per minute.

How should you complete the template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

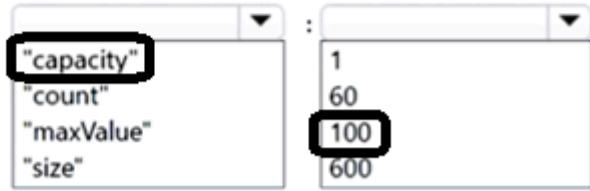
Answer Area

```
{  
  "type": "Microsoft.CognitiveServices/accounts/deployments",  
  "apiVersion": "2023-05-01",  
  "name": "arm-aoai-sample-resource/arm-je-std-deployment",  
  "dependsOn": [  
    "[resourceId('Microsoft.CognitiveServices/accounts', 'arm-aoai-sample-resource')]"  
  ],  
  "sku": {  
    "name": "Standard",  
    :  
      "capacity"  
      "count"  
      "maxValue"  
      "size"  
    :  
      1  
      60  
      100  
      600  
  },  
  "properties": {  
    "model": {  
      "format": "OpenAI",  
      ...  
    }  
  }  
}
```

Answer Area

```
{  
    "type": "Microsoft.CognitiveServices/accounts/deployments",  
    "apiVersion": "2023-05-01",  
    "name": "arm-aoai-sample-resource/arm-je-std-deployment",  
    "dependsOn": [  
        "[resourceId('Microsoft.CognitiveServices/accounts', 'arm-aoai-sample-resource')]"  
    ],  
    "sku": {  
        "name": "Standard",  
        "capacity": 100  
    },  
    "properties": {  
        "model": {  
            "format": "OpenAI",  
            ...  
        }  
    }  
}
```

Correct Answer:



DRAG DROP

You have an app that manages feedback.

You need to ensure that the app can detect negative comments by using the Sentiment Analysis API in Azure AI Language. The solution must ensure that the managed feedback remains on your company's internal network.

Which three 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.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Actions

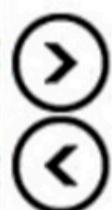
Identify the Language service endpoint URL and query the prediction endpoint.

Provision the Language service resource in Azure.

Run the container and query the prediction endpoint.

Deploy a Docker container to an on-premises server.

Deploy a Docker container to an Azure container instance.

Answer Area**Answer Area**

Deploy a Docker container to an on-premises server.

Correct Answer:

Provision the Language service resource in Azure.

Run the container and query the prediction endpoint.

HOTSPOT

You have an Azure OpenAI resource named AI1 that hosts three deployments of the GPT 3.5 model. Each deployment is optimized for a unique workload.

You plan to deploy three apps. Each app will access AI1 by using the REST API and will use the deployment that was optimized for the app's intended workload.

You need to provide each app with access to AI1 and the appropriate deployment. The solution must ensure that only the apps can access AI1.

What should you use to provide access to AI1, and what should each app use to connect to its appropriate deployment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Provide access to AI1 by using:

- An API key
- A bearer token
- A shared access signature (SAS) token

Connect to the deployment by using:

- An API key
- A deployment endpoint
- A deployment name
- A deployment type

Answer Area

Provide access to AI1 by using:

- An API key
- A bearer token**
- A shared access signature (SAS) token

Correct Answer:

Connect to the deployment by using:

- An API key
- A deployment endpoint**
- A deployment name
- A deployment type

You build a bot by using the Microsoft Bot Framework SDK.

You start the bot on a local computer.

You need to validate the functionality of the bot.

What should you do before you connect to the bot?

- A. Run the Bot Framework Emulator.
- B. Run the Bot Framework Composer.
- C. Register the bot with Azure Bot Service.
- D. Run Windows Terminal.

Correct Answer: A

Community vote distribution

A (100%)

You have an Azure OpenAI model named AI1.

You are building a web app named App1 by using the Azure OpenAI SDK.

You need to configure App1 to connect to AI1.

What information must you provide?

- A. the endpoint, key, and model name
- B. the deployment name, key, and model name
- C. the deployment name, endpoint, and key
- D. the endpoint, key, and model type

Correct Answer: C

Community vote distribution

C (100%)

You are building a solution in Azure that will use Azure Cognitive Service for Language to process sensitive customer data.

You need to ensure that only specific Azure processes can access the Language service. The solution must minimize administrative effort.

What should you include in the solution?

- A. IPsec rules
- B. Azure Application Gateway
- C. a virtual network gateway
- D. virtual network rules

Correct Answer: D

Community vote distribution

D (100%)

You plan to perform predictive maintenance.

You collect IoT sensor data from 100 industrial machines for a year. Each machine has 50 different sensors that generate data at one-minute intervals. In total, you have 5,000 time series datasets.

You need to identify unusual values in each time series to help predict machinery failures.

Which Azure service should you use?

- A. Azure AI Computer Vision
- B. Cognitive Search
- C. Azure AI Document Intelligence
- D. Azure AI Anomaly Detector

Correct Answer: D

Community vote distribution

D (100%)

HOTSPOT

You plan to deploy a containerized version of an Azure Cognitive Services service that will be used for sentiment analysis.

You configure https://contoso.cognitiveservices.azure.com as the endpoint URI for the service.

You need to run the container on an Azure virtual machine by using Docker.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \
```

```
http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment
```

```
Eula=accept \
```

```
Billing=
```

```
http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment
```

```
ApiKey=xxxxxxxxxxxxxxxxxxxxxx
```

Answer Area

```
docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \
```

```
http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment
```

Correct Answer:

```
Eula=accept \
```

```
Billing=
```

```
http://contoso.blob.core.windows.net
https://contoso.cognitiveservices.azure.com
mcr.microsoft.com/azure-cognitive-services/textanalytics/keyphrase
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment
```

```
ApiKey=xxxxxxxxxxxxxxxxxxxxxx
```

You are developing a system that will monitor temperature data from a data stream. The system must generate an alert in response to atypical values. The solution must minimize development effort.

What should you include in the solution?

- A. Multivariate Anomaly Detection
- B. Azure Stream Analytics
- C. metric alerts in Azure Monitor
- D. Univariate Anomaly Detection

Correct Answer: D

Community vote distribution

D (50%) B (25%) C (25%)

You have a Microsoft OneDrive folder that contains a 20-GB video file named File1.avi.

You need to index File1.avi by using the Azure Video Indexer website.

What should you do?

- A. Upload File1.avi to the www.youtube.com webpage, and then copy the URL of the video to the Azure AI Video Indexer website.
- B. Download File1.avi to a local computer, and then upload the file to the Azure AI Video Indexer website.
- C. From OneDrive, create a download link, and then copy the link to the Azure AI Video Indexer website.
- D. From OneDrive, create a sharing link for File1.avi, and then copy the link to the Azure AI Video Indexer website.

Correct Answer: C

Community vote distribution

C (92%) 8%

You have an Azure subscription that contains an Azure AI Service resource named CSAccount1 and a virtual network named VNet1. CSAccount1 is connected to VNet1.

You need to ensure that only specific resources can access CSAccount1. The solution must meet the following requirements:

- Prevent external access to CSAccount1.
- Minimize administrative effort.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct answer is worth one point.

- A. In VNet1, enable a service endpoint for CSAccount1.
- B. In CSAccount1, configure the Access control (IAM) settings.
- C. In VNet1, modify the virtual network settings.
- D. In VNet1, create a virtual subnet.
- E. In CSAccount1, modify the virtual network settings.

Correct Answer: AD

Community vote distribution

AE (68%)

AB (32%)

You are building an internet-based training solution. The solution requires that a user's camera and microphone remain enabled.

You need to monitor a video stream of the user and detect when the user asks an instructor a question. The solution must minimize development effort.

What should you include in the solution?

- A. speech-to-text in the Azure AI Speech service
- B. language detection in Azure AI Language Service
- C. the Face service in Azure AI Vision
- D. object detection in Azure AI Custom Vision

Correct Answer: A

Community vote distribution

A (100%)

Question #1

HOTSPOT -

You are developing an application that will use the Computer Vision client library. The application has the following code.

```
public async Task>AnalyzeImage(ComputerVisionClient client, string localImage)
{
    List<VisualFeatureTypes> features = new List<VisualFeatureTypes>()
    {
        VisualFeatureTypes.Description,
        VisualFeatureTypes.Tags,
    };
    using (Stream imageStream = File.OpenRead(localImage))
    {
        try
        {
            ImageAnalysis results = await client.AnalyzeImageInStreamAsync(imageStream, features);

            foreach (var caption in results.Description.Captions)
            {
                Console.WriteLine($"{caption.Text} with confidence {caption.Confidence}");
            }

            foreach (var tag in results.Tags)
            {
                Console.WriteLine($"{tag.Name} {tag.Confidence}");
            }
        }
        catch (Exception ex)
        {
            Console.WriteLine(ex.Message);
        }
    }
}
```

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 code will perform face recognition.	<input type="radio"/>	<input type="radio"/>
The code will list tags and their associated confidence.	<input type="radio"/>	<input type="radio"/>
The code will read a file from the local file system.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
Correct Answer: The code will perform face recognition.	<input type="radio"/>	<input checked="" type="radio"/>
The code will list tags and their associated confidence.	<input checked="" type="radio"/>	<input type="radio"/>
The code will read a file from the local file system.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: No -

Box 2: Yes -

The ComputerVision.analyzeImageInStreamAsync operation extracts a rich set of visual features based on the image content.

Box 3: No -

Images will be read from a stream.

Reference:

<https://docs.microsoft.com/en-us/java/api/com.microsoft.azure.cognitiveservices.vision.computervision.computervision.analyzeimageinstreamasync>

You are developing a method that uses the Computer Vision client library. The method will perform optical character recognition (OCR) in images. The method has the following code.

```
public static async Task ReadFileUrl(ComputerVisionClient client, string urlFile)
{
    const int numberOfCharsInOperationId = 36;

    var txtHeaders = await client.ReadAsync(urlFile, language: "en");

    string opLocation = txtHeaders.OperationLocation;
    string operationId = opLocation.Substring(opLocation.Length -
    numberOfCharsInOperationId);

    ReadOperationResult results;

    results = await client.GetReadResultAsync(Guid.Parse(operationId));

    var textUrlFileResults = results.AnalyzeResult.ReadResults;
    foreach (ReadResult page in textUrlFileResults)
    {
        foreach (Line line in page.Lines)
        {
            Console.WriteLine(line.Text);
        }
    }
}
```

During testing, you discover that the call to the GetReadResultAsync method occurs before the read operation is complete.

You need to prevent the GetReadResultAsync method from proceeding until the read operation is complete.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Remove the Guid.Parse(operationId) parameter.
- B. Add code to verify the results.Status value.
- C. Add code to verify the status of the txtHeaders.Status value.
- D. Wrap the call to GetReadResultAsync within a loop that contains a delay.

Correct Answer: BD

Example code :

```
do
{
    results = await client.GetReadResultAsync(Guid.Parse(operationId));
}
while ((results.Status == OperationStatusCodes.Running ||
results.Status == OperationStatusCodes.NotStarted));
```

Reference:

<https://github.com/Azure-Samples/cognitive-services-quickstart-code/blob/master/dotnet/ComputerVision/ComputerVisionQuickstart.cs>

Community vote distribution

BD (100%)

HOTSPOT -

You have a Computer Vision resource named contoso1 that is hosted in the West US Azure region.

You need to use contoso1 to make a different size of a product photo by using the smart cropping feature.

How should you complete the API URL? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
curl -H "Ocp-Apim-Subscription-Key: xxx" /  
-o "sample.png" -H "Content-Type: application/json" /  
"https://api.projectoxford.ai" /vision/v3.1/  
"https://contoso1.cognitiveservices.azure.com" ?width=100&height=100&smartCropping=true" /  
"https://westus.api.cognitive.microsoft.com"  
  
-d "{\"url\":\"https://upload.litwareinc.org/litware/bicycle.jpg\"}"
```

Correct Answer:**Answer Area**

```
curl -H "Ocp-Apim-Subscription-Key: xxx" /  
-o "sample.png" -H "Content-Type: application/json" /  
"https://api.projectoxford.ai" /vision/v3.1/  
"https://contoso1.cognitiveservices.azure.com" ?width=100&height=100&smartCropping=true" /  
"https://westus.api.cognitive.microsoft.com"  
  
-d "{\"url\":\"https://upload.litwareinc.org/litware/bicycle.jpg\"}"
```

Reference:

<https://westus.dev.cognitive.microsoft.com/docs/services/computer-vision-v3-2/operations/56f91f2e778daf14a499f21b>

<https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-generating-thumbnails#examples>

DRAG DROP -

You are developing a webpage that will use the Azure Video Analyzer for Media (previously Video Indexer) service to display videos of internal company meetings.

You embed the Player widget and the Cognitive Insights widget into the page.

You need to configure the widgets to meet the following requirements:

- Ensure that users can search for keywords.
- Display the names and faces of people in the video.
- Show captions in the video in English (United States).

How should you complete the URL for each widget? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
en-US	
false	
people,keywords	
people,search	
search	
true	

Cognitive Insights Widget

`https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets=` `controls=`

Player Widget

`https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/? showcaptions=` `captions=`

Correct Answer:

Values	Answer Area
false	
people,search	

Cognitive Insights Widget

`https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets=` `controls=`

Player Widget

`https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/? showcaptions=` `captions=`

Reference:

<https://docs.microsoft.com/en-us/azure/azure-video-analyzer/video-analyzer-for-media-docs/video-indexer-embed-widgets>

DRAG DROP -

You train a Custom Vision model to identify a company's products by using the Retail domain.

You plan to deploy the model as part of an app for Android phones.

You need to prepare the model for deployment.

Which three 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

Change the model domain.

Retrain the model.

Test the model.

Export the model.

Answer Area**Correct Answer:****Actions**

Answer Area

Change the model domain.

Retrain the model.

Test the model.

Export the model.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/export-your-model>

HOTSPOT -

You are developing an application to recognize employees' faces by using the Face Recognition API. Images of the faces will be accessible from a URI endpoint.

The application has the following code.

```
def add_face(subscription_key, person_group_id, person_id, image_uri):
    headers = {
        'Content-Type': 'application/json',
        'Ocp-Apim-Subscription-Key': subscription_key
    }
    body = {
        'url': image_uri
    }
    conn = httplib.HTTPEConnection('westus.api.cognitive.microsoft.com')
    conn.request('POST',
                 f'/face/v1.0/persongroups/{person_group_id}/persons/{person_id}/persistedFaces',
                 f'{body}', headers)
    response = conn.getresponse()
    response_data = response.read()
```

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 code will add a face image to a person object in a person group.

The code will work for up to 10,000 people.

add_face can be called multiple times to add multiple face images to a person object.

Correct Answer:**Answer Area****Statements****Yes** **No**

The code will add a face image to a person object in a person group.

The code will work for up to 10,000 people.

add_face can be called multiple times to add multiple face images to a person object.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/face/face-api-how-to-topics/use-persondirectory>

DRAG DROP -

You have a Custom Vision resource named acvdev in a development environment.

You have a Custom Vision resource named acvprod in a production environment.

In acvdev, you build an object detection model named obj1 in a project named proj1.

You need to move obj1 to acvprod.

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

Select and Place:

Actions**Answer Area**

Use the `ExportProject` endpoint on acvdev.



Use the `GetProjects` endpoint on acvdev.

Use the `ImportProject` endpoint on acvprod.

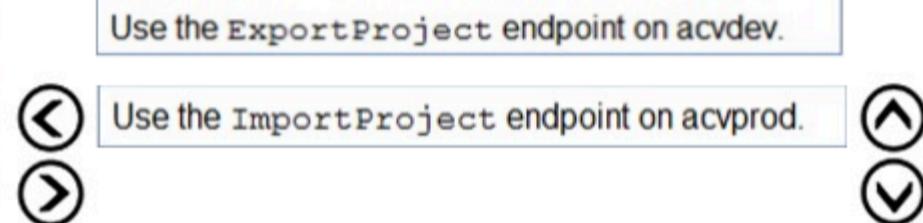
Use the `ExportIteration` endpoint on acvdev.

Use the `GetIterations` endpoint on acvdev.

Use the `UpdateProject` endpoint on acvprod.

Correct Answer:**Actions****Answer Area**

Use the `GetProjects` endpoint on acvdev.



Use the `ExportIteration` endpoint on acvdev.

Use the `GetIterations` endpoint on acvdev.

Use the `UpdateProject` endpoint on acvprod.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/copy-move-projects>

DRAG DROP -

You are developing an application that will recognize faults in components produced on a factory production line. The components are specific to your business.

You need to use the Custom Vision API to help detect common faults.

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

Select and Place:

Actions**Answer Area**

Train the classifier model.

Upload and tag images.

Initialize the training dataset.

Train the object detection model.

Create a project.



Correct Answer:

Actions**Answer Area**

Create a project.

Upload and tag images.

Train the classifier model.



Step 1: Create a project -

Create a new project.

Step 2: Upload and tag the images

Choose training images. Then upload and tag the images.

Step 3: Train the classifier model.

Train the classifier -

Reference:

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

HOTSPOT -

You are building a model that will be used in an iOS app.

You have images of cats and dogs. Each image contains either a cat or a dog.

You need to use the Custom Vision service to detect whether the images is of a cat or a dog.

How should you configure the project in the Custom Vision portal? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Project Types:

Classification
Object Detection

Classification Types:

Multiclass (Single tag per image)
Multilabel (Multiple tags per image)

Domains:

Audit
Food
General
General (compact)
Landmarks
Landmarks (compact)
Retail
Retail (compact)

Answer Area

Project Types:

Classification
Object Detection

Classification Types:

Multiclass (Single tag per image)
Multilabel (Multiple tags per image)

Correct Answer:

Domains:

Audit
Food
General
General (compact)
Landmarks
Landmarks (compact)
Retail
Retail (compact)

Box 1: Classification -

Incorrect Answers:

An object detection project is for detecting which objects, if any, from a set of candidates are present in an image.

Box 2: Multiclass -

A multiclass classification project is for classifying images into a set of tags, or target labels. An image can be assigned to one tag only.

Incorrect Answers:

A multilabel classification project is similar, but each image can have multiple tags assigned to it.

Box 3: General -

General: Optimized for a broad range of image classification tasks. If none of the other specific domains are appropriate, or if you're unsure of which domain to choose, select one of the General domains.

Reference:

<https://cran.r-project.org/web/packages/AzureVision/vignettes/customvision.html>

Question #10

Topic 2

You have an Azure Video Analyzer for Media (previously Video Indexer) service that is used to provide a search interface over company videos on your company's website.

You need to be able to search for videos based on who is present in the video.

What should you do?

- A. Create a person model and associate the model to the videos.
- B. Create person objects and provide face images for each object.
- C. Invite the entire staff of the company to Video Indexer.
- D. Edit the faces in the videos.
- E. Upload names to a language model.

Correct Answer: A

Video Indexer supports multiple Person models per account. Once a model is created, you can use it by providing the model ID of a specific Person model when uploading/indexing or reindexing a video. Training a new face for a video updates the specific custom model that the video was associated with.

Note: Video Indexer supports face detection and celebrity recognition for video content. The celebrity recognition feature covers about one million faces based on commonly requested data source such as IMDB, Wikipedia, and top LinkedIn influencers. Faces that aren't recognized by the celebrity recognition feature are detected but left unnamed. Once you label a face with a name, the face and name get added to your account's Person model. Video Indexer will then recognize this face in your future videos and past videos.

Reference:

<https://docs.microsoft.com/en-us/azure/media-services/video-indexer/customize-person-model-with-api>

Community vote distribution

A (92%)

8%

You use the Custom Vision service to build a classifier.

After training is complete, you need to evaluate the classifier.

Which two metrics are available for review? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. recall
- B. F-score
- C. weighted accuracy
- D. precision
- E. area under the curve (AUC)

Correct Answer: AD

Custom Vision provides three metrics regarding the performance of your model: precision, recall, and AP.

Reference:

<https://www.tallan.com/blog/2020/05/19/azure-custom-vision/>

Community vote distribution

AD (100%)

DRAG DROP -

You are developing a call to the Face API. The call must find similar faces from an existing list named employeefaces. The employeefaces list contains 60,000 images.

How should you complete the body of the HTTP request? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values

"faceListId"
"LargeFaceListId"
"matchFace"
"matchPerson"

Answer Area

```
{  
  "faceId": "18c51a87-3a69-47a8-aedc-a54745f708a1",  
  "LargeFaceListId": "employeefaces",  
  "maxNumOfCandidatesReturned": 1,  
  "mode": "matchPerson"  
}
```

Correct Answer:**Values**

"faceListId"
"LargeFaceListId"
"matchFace"
"matchPerson"

Answer Area

```
{  
  "faceId": "18c51a87-3a69-47a8-aedc-a54745f708a1",  
  "LargeFaceListId": "employeefaces",  
  "maxNumOfCandidatesReturned": 1,  
  "mode": "matchFace"  
}
```

Box 1: LargeFaceListID -

LargeFaceList: Add a face to a specified large face list, up to 1,000,000 faces.

Note: Given query face's faceld, to search the similar-looking faces from a faceld array, a face list or a large face list. A "faceListId" is created by FaceList - Create containing persistedFacelds that will not expire. And a "largeFaceListId" is created by LargeFaceList - Create containing persistedFacelds that will also not expire.

Incorrect Answers:

Not "faceListId": Add a face to a specified face list, up to 1,000 faces.

Box 2: matchFace -

Find similar has two working modes, "matchPerson" and "matchFace". "matchPerson" is the default mode that it tries to find faces of the same person as possible by using internal same-person thresholds. It is useful to find a known person's other photos. Note that an empty list will be returned if no faces pass the internal thresholds. "matchFace" mode ignores same-person thresholds and returns ranked similar faces anyway, even the similarity is low. It can be used in the cases like searching celebrity-looking faces.

Reference:

<https://docs.microsoft.com/en-us/rest/api/faceapi/face/findsimilar>

DRAG DROP -

You are developing a photo application that will find photos of a person based on a sample image by using the Face API.

You need to create a POST request to find the photos.

How should you complete the request? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
detect	POST {Endpoint}/face/v1.0/ <input type="text"/>
findsimilar	Request Body
group	
identify	
matchFace	
matchPerson	
verify	

{
 "faceId": "c5c24a82-6845-4031-9d5d-978df9175426",
 "largeFaceListId": "sample_list",
 "maxNumOfCandidatesReturned": 10,
 "mode": ""
}

Correct Answer:

Values	Answer Area
detect	POST {Endpoint}/face/v1.0/ <input type="text"/> detect
findsimilar	Request Body
group	
identify	
matchFace	
matchPerson	
verify	

{
 "faceId": "c5c24a82-6845-4031-9d5d-978df9175426",
 "largeFaceListId": "sample_list",
 "maxNumOfCandidatesReturned": 10,
 "mode": " matchPerson"
}

Box 1: detect -

Face - Detect With Url: Detect human faces in an image, return face rectangles, and optionally with faceIds, landmarks, and attributes.

POST {Endpoint}/face/v1.0/detect

Box 2: matchPerson -

Find similar has two working modes, "matchPerson" and "matchFace". "matchPerson" is the default mode that it tries to find faces of the same person as possible by using internal same-person thresholds. It is useful to find a known person's other photos. Note that an empty list will be returned if no faces pass the internal thresholds. "matchFace" mode ignores same-person thresholds and returns ranked similar faces anyway, even the similarity is low. It can be used in the cases like searching celebrity-looking faces.

Reference:

<https://docs.microsoft.com/en-us/rest/api/faceapi/face/detectwithurl> <https://docs.microsoft.com/en-us/rest/api/faceapi/face/findsimilar>

HOTSPOT -

You develop a test method to verify the results retrieved from a call to the Computer Vision API. The call is used to analyze the existence of company logos in images. The call returns a collection of brands named brands.

You have the following code segment.

```
for brand in image_analysis.brands:  
    if brand_confidence >= 0.75:  
        print(f"\nLogo of {brand_name} between {brand.rectangle_x}, {brand.rectangle.y} and  
{brand.rectangle.w}, {brand.rectangle.h}")
```

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 code will return the name of each detected brand with a confidence equal to or higher than 75 percent.

The code will return coordinates for the top-left corner of the rectangle that contains the brand logo of the displayed brands.

The code will return coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.

 Answer Area**Statements****Yes** **No**

The code will return the name of each detected brand with a confidence equal to or higher than 75 percent.

Correct Answer:

The code will return coordinates for the top-left corner of the rectangle that contains the brand logo of the displayed brands.

The code will return coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.

Box 1: Yes -

Box 2: Yes -

Coordinates of a rectangle in the API refer to the top left corner.

Box 3: No -

Reference:

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

HOTSPOT -

You develop an application that uses the Face API.

You need to add multiple images to a person group.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
Parallel.For(0, PersonCount, async i =>
{
    Guid personId = persons[i].PersonId;
    string personImageDir = $"{path}/path/to/person/{i}/images";
    foreach (string imagePath in Directory.GetFiles(personImageDir, "*.jpg"))
    {
        using (File t = File.OpenRead(imagePath))
        {
            await faceClient.PersonGroupPerson.
                (personGroupId, personId, t);
        }
    });
}
```

File
Stream
Uri
Url

AddFaceFromStreamAsync
AddFaceFromUrlAsync
CreateAsync
GetAsync

Correct Answer:

Answer Area

```
Parallel.For(0, PersonCount, async i =>
{
    Guid personId = persons[i].PersonId;
    string personImageDir = $"{path}/path/to/person/{i}/images";
    foreach (string imagePath in Directory.GetFiles(personImageDir, "*.jpg"))
    {
        using (Stream t = File.OpenRead(imagePath))
        {
            await faceClient.PersonGroupPerson.
                (personGroupId, personId, t);
        }
    });
}
```

File
Stream
Uri
Url

AddFaceFromStreamAsync
AddFaceFromUrlAsync
CreateAsync
GetAsync

Box 1: Stream -

The File.OpenRead(String) method opens an existing file for reading.

Example: Open the stream and read it back.

```
using (FileStream fs = File.OpenRead(path))
```

Box 2: CreateAsync -

Create the persons for the PersonGroup. Persons are created concurrently.

Example:

```
await faceClient.PersonGroupPerson.CreateAsync(personGroupId, personName);
```

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/face/face-api-how-to-topics/how-to-add-faces>

Your company uses an Azure Cognitive Services solution to detect faces in uploaded images. The method to detect the faces uses the following code.

```
static async Task DetectFaces(string imagePath)
{
    HttpClient client = new HttpClient();
    DefaultRequestHeaders.Add("Ocp-Apim-Subscription-Key", subscriptionKey);
    string requestParameter = "detectionModel=detection_01&returnFaceId=true&returnFaceLandmarks=false";
    string uri = endpoint + "/face/v1.0/detect?" + requestParameters;
    HttpResponseMessage response;
    byte[] byteData = GetImagesAsByteArray(imagePath);
    using (ByteArrayContent content = new ByteArrayContent(byteData))
    {
        Headers.ContentType = new MediaTypeHeaderValue("application/octet-stream");
        response = await PostAsync(uri, content);
        string contentString = await Content.ReadAsStringAsync();
        ProcessDetection(contentString);
    }
}
```

You discover that the solution frequently fails to detect faces in blurred images and in images that contain sideways faces.

You need to increase the likelihood that the solution can detect faces in blurred images and images that contain sideways faces.

What should you do?

- A. Use a different version of the Face API.
- B. Use the Computer Vision service instead of the Face service.
- C. Use the Identify method instead of the Detect method.
- D. Change the detection model.

Correct Answer: D

Evaluate different models.

The best way to compare the performances of the detection models is to use them on a sample dataset. We recommend calling the Face-Detect API on a variety of images, especially images of many faces or of faces that are difficult to see, using each detection model. Pay attention to the number of faces that each model returns.

The different face detection models are optimized for different tasks. See the following table for an overview of the differences.

detection_01

Default choice for all face detection operations.

Not optimized for small, side-view, or blurry faces.

Returns main face attributes (head pose, age, emotion, and so on) if they're specified in the detect call.

Returns face landmarks if they're specified in the detect call.

detection_02

Released in May 2019 and available optionally in all face detection operations.

Improved accuracy on small, side-view, and blurry faces.

Does not return face attributes.

Does not return face landmarks.

detection_03

Released in February 2021 and available optionally in all face detection operations.

Further improved accuracy, including on smaller faces (64x64 pixels) and rotated face orientations.

Returns mask and head pose attributes if they're specified in the detect call.

Returns face landmarks if they're specified in the detect call.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/face/face-api-how-to-topics/specify-detection-model>

Community vote distribution

D (100%)

You have the following Python function for creating Azure Cognitive Services resources programmatically.

```
def create_resource(resource_name, kind, account_tier, location) :  
    parameters = CognitiveServicesAccount(sku=Sku(name=account_tier), kind=kind, location=location, properties={})  
    result = client.accounts.create(resource_group_name, resource_name, parameters)
```

You need to call the function to create a free Azure resource in the West US Azure region. The resource will be used to generate captions of images automatically.

Which code should you use?

- A. create_resource("res1", "ComputerVision", "F0", "westus")
- B. create_resource("res1", "CustomVision.Prediction", "F0", "westus")
- C. create_resource("res1", "ComputerVision", "S0", "westus")
- D. create_resource("res1", "CustomVision.Prediction", "S0", "westus")

Correct Answer: B

F0 is the free tier.

Custom Vision Service -

Upload images to train and customize a computer vision model for your specific use case. Once the model is trained, you can use the API to tag images using the model and evaluate the results to improve your classifier.

Incorrect:

Not C, not D: S0 is the standard tier, which isn't free.

Not A, not C: The Computer Vision service provides developers with access to advanced algorithms for processing images and returning information.

Computer Vision -

Returns information about visual content found in an image:

Use tagging, descriptions, and domain-specific models to identify content and label it with confidence.

Apply adult/racy settings to enable automated restriction of adult content.

Identify image types and color schemes in pictures.

Reference:

<https://docs.microsoft.com/en-us/python/api/overview/azure/cognitive-services?view=azure-python>

Community vote distribution

A (98%)

You are developing a method that uses the Computer Vision client library. The method will perform optical character recognition (OCR) in images. The method has the following code.

```
def read_file_url(computervision_client, url_file):
    read_response = computervision_client.read(url_file, raw=True)
    read_operation_location = read_response.headers["Operation-Location"]
    operation_id = read_operation_location.split("/")[-1]
    read_result = computervision_client.get_read_result(operation_id)

    for page in read_result.analyze_result.read_results:
        for line in page.lines:
            print(line.text)
```

During testing, you discover that the call to the GetReadResultAsync method occurs before the read operation is complete.

You need to prevent the GetReadResultAsync method from proceeding until the read operation is complete.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Remove the operation_id parameter.
- B. Add code to verify the read_results.status value.
- C. Add code to verify the status of the read_operation_location value.
- D. Wrap the call to get_read_result within a loop that contains a delay.

Correct Answer: BD

Community vote distribution

BD (100%)

HOTSPOT -

You are building an app that will enable users to upload images. The solution must meet the following requirements:

- * Automatically suggest alt text for the images.
- * Detect inappropriate images and block them.
- * Minimize development effort.

You need to recommend a computer vision endpoint for each requirement.

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Generate alt text:

https://westus.api.cognitive.microsoft.com/contentmoderator/moderate/v1.0/ProcessImage/Evaluate
https://westus.api.cognitive.microsoft.com/customvision/v3.1/prediction/projectId/classify/iterations/publishedName/image
https://westus.api.cognitive.microsoft.com/vision/v3.2/analyze/?visualFeatures=Adult,Description

Detect inappropriate content:

https://westus.api.cognitive.microsoft.com/contentmoderator/moderate/v1.0/ProcessImage/Evaluate
https://westus.api.cognitive.microsoft.com/customvision/v3.1/prediction/projectId/classify/iterations/publishedName/image
https://westus.api.cognitive.microsoft.com/vision/v3.2/analyze/?visualFeatures=Adult,Description
https://westus.api.cognitive.microsoft.com/vision/v3.2/describe?maxCandidates=1

Correct Answer:**Answer Area**

Generate alt text:

https://westus.api.cognitive.microsoft.com/contentmoderator/moderate/v1.0/ProcessImage/Evaluate
https://westus.api.cognitive.microsoft.com/customvision/v3.1/prediction/projectId/classify/iterations/publishedName/image
https://westus.api.cognitive.microsoft.com/vision/v3.2/analyze/?visualFeatures=Adult,Description

Detect inappropriate content:

https://westus.api.cognitive.microsoft.com/contentmoderator/moderate/v1.0/ProcessImage/Evaluate
https://westus.api.cognitive.microsoft.com/customvision/v3.1/prediction/projectId/classify/iterations/publishedName/image
https://westus.api.cognitive.microsoft.com/vision/v3.2/analyze/?visualFeatures=Adult,Description
https://westus.api.cognitive.microsoft.com/vision/v3.2/describe?maxCandidates=1

Box 1: <https://westus.api.cognitive.microsoft.com/customvision/v3.1/prediction/projectid/classify/iterations/publishName/image>

Box 2: <https://westus.api.cognitive.microsoft.com/vision/v3.2/analyze/?visualFeatures=Adult,Description>

Computer Vision can detect adult material in images so that developers can restrict the display of these images in their software. Content flags are applied with a score between zero and one so developers can interpret the results according to their own preferences.

You can detect adult content with the Analyze Image API. When you add the value of Adult to the visualFeatures query parameter

Incorrect:

Use the Image Moderation API in Azure Content Moderator to scan image content. The moderation job scans your content for profanity, and compares it against custom and shared blocklists.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-detecting-adult-content> <https://docs.microsoft.com/en-us/azure/cognitive-services/content-moderator/try-image-api> <https://docs.microsoft.com/en-us/legal/cognitive-services/custom-vision/custom-vision-cvs-transparency-note>

You need to build a solution that will use optical character recognition (OCR) to scan sensitive documents by using the Computer Vision API. The solution must NOT be deployed to the public cloud.

What should you do?

- A. Build an on-premises web app to query the Computer Vision endpoint.
- B. Host the Computer Vision endpoint in a container on an on-premises server.
- C. Host an exported Open Neural Network Exchange (ONNX) model on an on-premises server.
- D. Build an Azure web app to query the Computer Vision endpoint.

Correct Answer: B

One option to manage your Computer Vision containers on-premises is to use Kubernetes and Helm.

Three primary parameters for all Cognitive Services containers are required. The Microsoft Software License Terms must be present with a value of accept. An

Endpoint URI and API key are also needed.

Incorrect:

Not D: This Computer Vision endpoint would be available for the public, unless it is secured.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/deploy-computer-vision-on-premises>

Community vote distribution

B (100%)

You have an Azure Cognitive Search solution and a collection of handwritten letters stored as JPEG files.

You plan to index the collection. The solution must ensure that queries can be performed on the contents of the letters.

You need to create an indexer that has a skillset.

Which skill should you include?

- A. image analysis
- B. optical character recognition (OCR)
- C. key phrase extraction
- D. document extraction

Correct Answer: B

Community vote distribution

B (100%)

HOTSPOT

You have a library that contains thousands of images.

You need to tag the images as photographs, drawings, or clipart.

Which service endpoint and response property should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Service endpoint:

Property:

Answer Area

Service endpoint:

Property:

Correct Answer:

You have an app that captures live video of exam candidates.

You need to use the Face service to validate that the subjects of the videos are real people.

What should you do?

- A. Call the face detection API and retrieve the face rectangle by using the FaceRectangle attribute.
- B. Call the face detection API repeatedly and check for changes to the FaceAttributes.HeadPose attribute.
- C. Call the face detection API and use the FaceLandmarks attribute to calculate the distance between pupils.
- D. Call the face detection API repeatedly and check for changes to the FaceAttributes.Accessories attribute.

Correct Answer: A

Community vote distribution

B (87%)

13%

HOTSPOT

You make an API request and receive the results shown in the following exhibits.

HTTP request

```
POST https://facetesting.cognitiveservices.azure.com/face/v1.0/detect?returnFaceId=true&returnFaceLandmarks=false&returnFaceAttributes=qualityForRecognition&recognitionModel=recognition_04&returnRecognitionModel=false&detectionModel=detection_03&faceIdTimeToLive=86400 HTTP/1.1
Host: facetesting.cognitiveservices.azure.com
Content-Type: application/json
Ocp-Apim-Subscription-Key: *****

{
    "url": "https://news.microsoft.com/wp-content/uploads/prod/sites/68/2021/11/EDU19_HigherEdStudentsOnCampus_002-1536x1024.jpg"
}
```

Send

Response status

200 OK

Response content

```
x-envoy-upstream-service-time: 1292
apim-request-id: 8a3aa72f-5bad-45d0-b8a4-584312258f06
Strict-Transport-Security: max-age=31536000; includeSubDomains; preload
x-content-type-options: nosniff
CSP-Billing-Usage: CognitiveServices.Face.Transaction=1
Date: Sat, 04 Dec 2021 11:15:33 GMT
Content-Length: 655
Content-Type: application/json; charset=utf-8
```

```
[{
  "faceId": "d14d131c-76ba-43e9-9e3d-dcf6466e5022",
  "faceRectangle": {
    "top": 201,
    "left": 797,
    "width": 121,
    "height": 160
  },
  "faceAttributes": {
    "qualityForRecognition": "high"
  }
}, {
  "faceId": "a3a0f2ff-b015-464c-b87c-0dd09d0698da",
  "faceRectangle": {
    "top": 249,
    "left": 1167,
    "width": 103,
    "height": 159
  },
  "faceAttributes": {
    "qualityForRecognition": "medium"
  }
}, {
  "faceId": "45481ce8-dcc4-4564-a21c-3c15cdc9c4fa",
  "faceRectangle": {
    "top": 191,
    "left": 497,
    "width": 85,
    "height": 178
  },
  "faceAttributes": {
    "qualityForRecognition": "low"
  }
}, {
  "faceId": "eac17649-effd-42c9-9093-4dd60fd4fc7",
  "faceRectangle": {
    "top": 754,
    "left": 118,
    "width": 30,
    "height": 44
  },
  "faceAttributes": {
    "qualityForRecognition": "low"
  }
}]
```

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

The API [answer choice] faces.

[answer choice]

detects
finds similar
recognizes
verifies

A face that can be used in person enrollment is at position [answer choice] within the photo.

[answer choice]

118, 754
497, 191
797, 201
1167, 249

Answer Area

The API [answer choice] faces.

detects
finds similar
recognizes
verifies

118,754
497,191
797,20
1167,249

Correct Answer:

A face that can be used in person enrollment is at position [answer choice] within the photo.

Topic 2

You have an Azure subscription that contains an AI enrichment pipeline in Azure Cognitive Search and an Azure Storage account that has 10 GB of scanned documents and images.

You need to index the documents and images in the storage account. The solution must minimize how long it takes to build the index.

What should you do?

- A. From the Azure portal, configure parallel indexing.
- B. From the Azure portal, configure scheduled indexing.
- C. Configure field mappings by using the REST API.
- D. Create a text-based indexer by using the REST API.

Correct Answer: A*Community vote distribution*

A (100%)

*Topic 2***Question #26****DRAG DROP**

You need to analyze video content to identify any mentions of specific company names.

Which three 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.

Actions

- Add the specific company names to the exclude list.
- Add the specific company names to the include list.
- From Content model customization, select **Language**.
- Sign in to the Custom Vision website.
- Sign in to the Azure Video Analyzer for Media website.
- From Content model customization, select **Brands**.

Answer Area

Answer Area
Sign in to the Azure Video Analyzer for Media website.
Correct Answer:
From Content model customization, select Brands .
Add the specific company names to the include list.

You have a mobile app that manages printed forms.

You need the app to send images of the forms directly to Forms Recognizer to extract relevant information. For compliance reasons, the image files must not be stored in the cloud.

In which format should you send the images to the Form Recognizer API endpoint?

- A. raw image binary
- B. form URL encoded
- C. JSON

Correct Answer: A

Community vote distribution

A (100%)

You plan to build an app that will generate a list of tags for uploaded images. The app must meet the following requirements:

- Generate tags in a user's preferred language.
- Support English, French, and Spanish.
- Minimize development effort.

You need to build a function that will generate the tags for the app.

Which Azure service endpoint should you use?

- A. Content Moderator Image Moderation
- B. Custom Vision image classification
- C. Computer Vision Image Analysis
- D. Custom Translator

Correct Answer: B

Community vote distribution

C (100%)

HOTSPOT

You develop a test method to verify the results retrieved from a call to the Computer Vision API. The call is used to analyze the existence of company logos in images. The call returns a collection of brands named brands.

You have the following code segment.

```
foreach (var brand in brands)
{
    if (brand.Confidence >= .75)
        Console.WriteLine($"Logo of {brand.Name} between {brand.Rectangle.X}, {brand.Rectangle.Y} and {brand.Rectangle.W},
{brand.Rectangle.H}");
}
```

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 code will display the name of each detected brand with a confidence equal to or higher than 75 percent.	<input type="radio"/>	<input type="radio"/>
The code will display coordinates for the top-left corner of the rectangle that contains the brand logo of the displayed brands.	<input type="radio"/>	<input type="radio"/>
The code will display coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
The code will display the name of each detected brand with a confidence equal to or higher than 75 percent.	<input checked="" type="radio"/>	<input type="radio"/>
The code will display coordinates for the top-left corner of the rectangle that contains the brand logo of the displayed brands.	<input checked="" type="radio"/>	<input type="radio"/>
The code will display coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.	<input type="radio"/>	<input checked="" type="radio"/>

Correct Answer:

DRAG DROP

You have a factory that produces cardboard packaging for food products. The factory has intermittent internet connectivity.

The packages are required to include four samples of each product.

You need to build a Custom Vision model that will identify defects in packaging and provide the location of the defects to an operator. The model must ensure that each package contains the four products.

Which project type and domain should you use? To answer, drag the appropriate options to the correct targets. Each option 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.

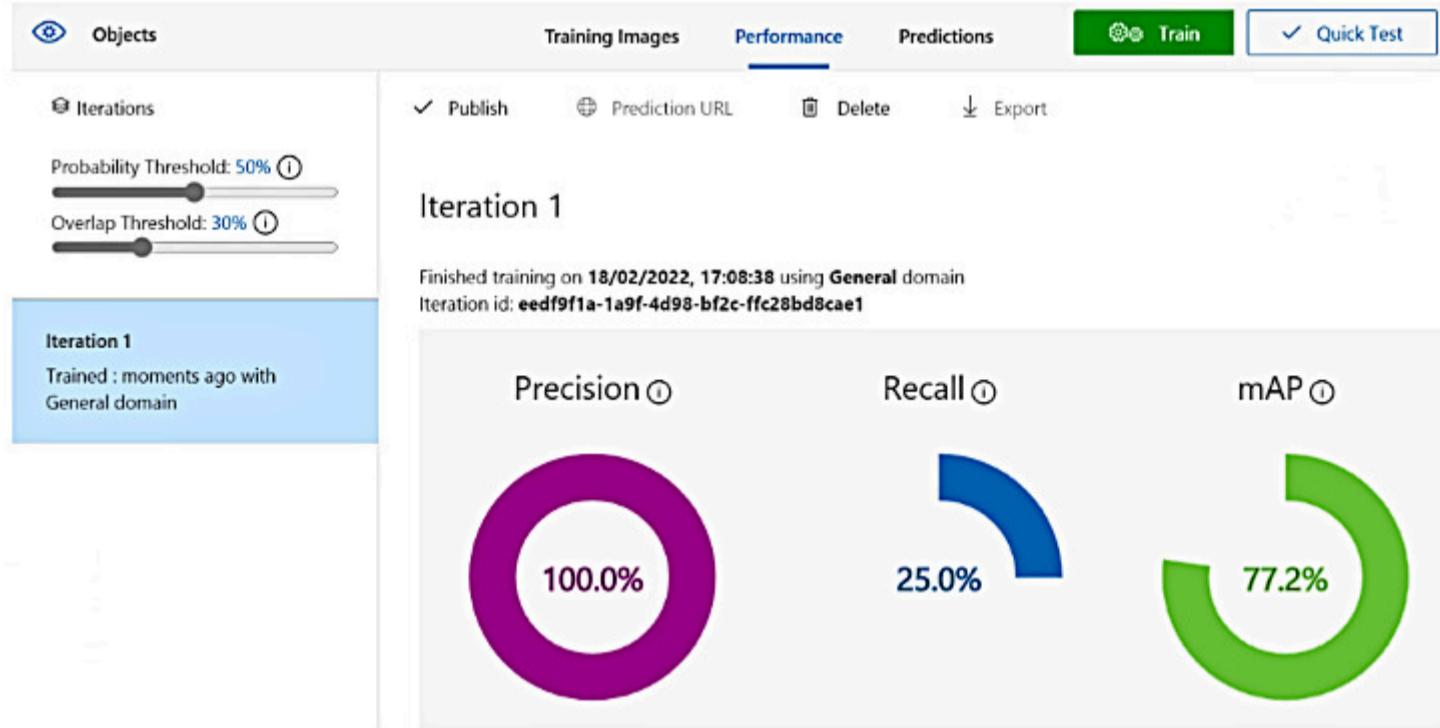
Options	Answer Area
<input type="checkbox"/> Food	Project type: <input type="text"/>
<input type="checkbox"/> General	Domain: <input type="text"/>
<input type="checkbox"/> General (compact)	
<input type="checkbox"/> Image classification	
<input type="checkbox"/> Logo	
<input type="checkbox"/> Object detection	

Answer Area
Correct Answer: Project type: <input checked="" type="text"/> Object detection Domain: <input checked="" type="text"/> General (compact)

HOTSPOT

You are building a model to detect objects in images.

The performance of the model based on training data is 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

The percentage of false positives is [answer choice].

0
25
30
50
100

The value for the number of true positives divided by the total number of true positives and false negatives is [answer choice] %.

0
25
30
50
100

Answer Area

The percentage of false positives is [answer choice].

0
25
30
50
100

Correct Answer:

The value for the number of true positives divided by the total number of true positives and false negatives is [answer choice] %.

0
25
30
50
100

You are building an app that will include one million scanned magazine articles. Each article will be stored as an image file.

You need to configure the app to extract text from the images. The solution must minimize development effort.

What should you include in the solution?

- A. Computer Vision Image Analysis
- B. the Read API in Computer Vision
- C. Form Recognizer
- D. Azure Cognitive Service for Language

Correct Answer: A

Community vote distribution

B (87%) 13%

You have a 20-GB video file named File1.avi that is stored on a local drive.

You need to index File1.avi by using the Azure Video Indexer website.

What should you do first?

- A. Upload File1.avi to an Azure Storage queue.
- B. Upload File1.avi to the Azure Video Indexer website.
- C. Upload File1.avi to Microsoft OneDrive.
- D. Upload File1.avi to the www.youtube.com webpage.

Correct Answer: B

Community vote distribution

C (77%) B (23%)

HOTSPOT

You are building an app that will share user images.

You need to configure the app to meet the following requirements:

- Uploaded images must be scanned and any text must be extracted from the images.
- Extracted text must be analyzed for the presence of profane language.
- The solution must minimize development effort.

What should you use for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Text extraction:

Azure AI Language
Azure AI Computer Vision
Content Moderator
Azure AI Custom Vision
Azure AI Document Intelligence

Profane language detection:

Azure AI Language
Azure AI Computer Vision
Content Moderator
Azure AI Custom Vision
Azure AI Document Intelligence

Answer Area

Text extraction:

Azure AI Language
Azure AI Computer Vision
Content Moderator
Azure AI Custom Vision
Azure AI Document Intelligence

Correct Answer:

Profane language detection:

Azure AI Language
Azure AI Computer Vision
Content Moderator
Azure AI Custom Vision
Azure AI Document Intelligence

You are building an app that will share user images.

You need to configure the app to perform the following actions when a user uploads an image:

- Categorize the image as either a photograph or a drawing.
- Generate a caption for the image.

The solution must minimize development effort.

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. object detection in Azure AI Computer Vision
- B. content tags in Azure AI Computer Vision
- C. image descriptions in Azure AI Computer Vision
- D. image type detection in Azure AI Computer Vision
- E. image classification in Azure AI Custom Vision

Correct Answer: CE

Community vote distribution

CD (85%)

CE (15%)

You are building an app that will use the Azure AI Video Indexer service.

You plan to train a language model to recognize industry-specific terms.

You need to upload a file that contains the industry-specific terms.

Which file format should you use?

- A. XML
- B. TXT
- C. XLS
- D. PDF

Correct Answer: B

Community vote distribution

B (100%)

DRAG DROP

You have an app that uses Azure AI and a custom trained classifier to identify products in images.

You need to add new products to the classifier. The solution must meet the following requirements:

- Minimize how long it takes to add the products.
- Minimize development effort.

Which five 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.

Actions

- Label the sample images.
- From Vision Studio, open the project.
- Publish the model.
- From the Custom Vision portal, open the project.
- Retrain the model.
- Upload sample images of the new products.
- From the Azure Machine Learning studio, open the workspace.

Answer Area**Correct Answer:**

- Answer Area**
- From Vision Studio, open the project.
 - Upload sample images of the new products.
 - Label the sample images.
 - Retrain the model.
 - Publish the model.

HOTSPOT

You are developing an application that will use the Azure AI Vision client library. The application has the following code.

```
def analyze_image(local_image):
    with open(local_image, "rb") as image_stream:
        image_analysis = client.analyze_image_in_stream(
            image=image_stream,
            visual_features=[
                VisualFeatureTypes.tags,
                VisualFeatureTypes.description
            ]
        )
        for caption in image_analysis.description.captions:
            print(f"\n{caption.text} with confidence {caption.confidence}")
        for tag in image_analysis.tags:
            print(f"\n{tag.name} with confidence {tag.confidence}")
```

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 code will perform face recognition.	<input type="radio"/>	<input type="radio"/>
The code will list tags and their associated confidence.	<input type="radio"/>	<input type="radio"/>
The code will read an image file from the local file system.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
Correct Answer: The code will perform face recognition.	<input type="radio"/>	<input checked="" type="checkbox"/>
The code will list tags and their associated confidence.	<input checked="" type="checkbox"/>	<input type="radio"/>
The code will read an image file from the local file system.	<input checked="" type="checkbox"/>	<input type="radio"/>

Topic 3 - Question Set 3

Question #1

Topic 3

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You build a language model by using a Language Understanding service. The language model is used to search for information on a contact list by using an intent named FindContact.

A conversational expert provides you with the following list of phrases to use for training.

- Find contacts in London.
- Who do I know in Seattle?
- Search for contacts in Ukraine.

You need to implement the phrase list in Language Understanding.

Solution: You create a new pattern in the FindContact intent.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead use a new intent for location.

Note: An intent represents a task or action the user wants to perform. It is a purpose or goal expressed in a user's utterance.

Define a set of intents that corresponds to actions users want to take in your application.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-intent>

Community vote distribution

A (56%)

B (44%)

Question #2

Topic 3

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You develop an application to identify species of flowers by training a Custom Vision model.

You receive images of new flower species.

You need to add the new images to the classifier.

Solution: You add the new images, and then use the Smart Labeler tool.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

The model need to be extended and retrained.

Note: Smart Labeler to generate suggested tags for images. This lets you label a large number of images more quickly when training a Custom Vision model.

Community vote distribution

B (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You develop an application to identify species of flowers by training a Custom Vision model.

You receive images of new flower species.

You need to add the new images to the classifier.

Solution: You add the new images and labels to the existing model. You retrain the model, and then publish the model.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A

The model needs to be extended and retrained.

Community vote distribution

A (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You develop an application to identify species of flowers by training a Custom Vision model.

You receive images of new flower species.

You need to add the new images to the classifier.

Solution: You create a new model, and then upload the new images and labels.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

The model needs to be extended and retrained.

Community vote distribution

B (100%)

HOTSPOT -

You are developing a service that records lectures given in English (United Kingdom).

You have a method named AppendToTranscriptFile that takes translated text and a language identifier.

You need to develop code that will provide transcripts of the lectures to attendees in their respective language. The supported languages are English, French,

Spanish, and German.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

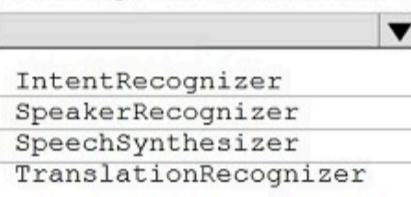
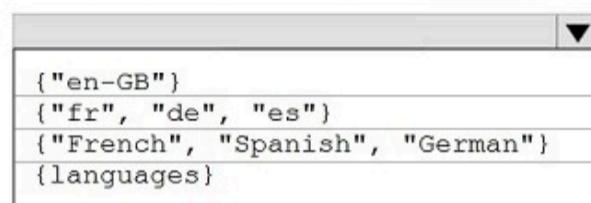
```
static async Task TranslateSpeechAsync()
{
    var config = SpeechTranslationConfig.FromSubscription("69cad5cc-0ab3-4704-bdff-afbf4aa07d85", "uksouth");

    var lang = new List<string>
    {
        {"en-GB"}
        {"fr", "de", "es"}
        {"French", "Spanish", "German"}
        {languages}
    }

    config.SpeechRecognitionLanguage = "en-GB";
    lang.ForEach(config.AddTargetLanguage);

    using var audioConfig = AudioConfig.FromDefaultMicrophoneInput();
    using var recognizer = new IntentRecognizer(config, audioConfig);

    var result = await recognizer.RecognizeOnceAsync();
    if (result.Reason == ResultReason.TranslatedSpeech)
```

**Correct Answer:****Answer Area**

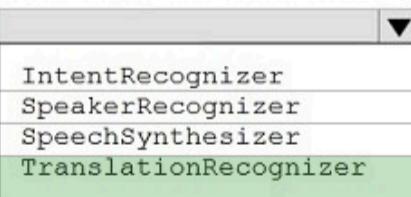
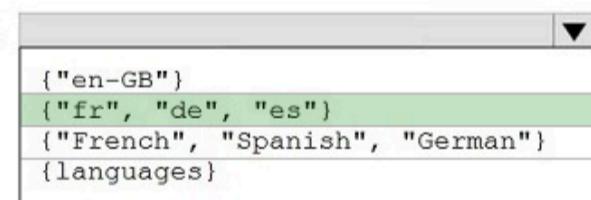
```
static async Task TranslateSpeechAsync()
{
    var config = SpeechTranslationConfig.FromSubscription("69cad5cc-0ab3-4704-bdff-afbf4aa07d85", "uksouth");

    var lang = new List<string>
    {
        {"en-GB"}
        {"fr", "de", "es"} // This row is highlighted in green
        {"French", "Spanish", "German"}
        {languages}
    }

    config.SpeechRecognitionLanguage = "en-GB";
    lang.ForEach(config.AddTargetLanguage);

    using var audioConfig = AudioConfig.FromDefaultMicrophoneInput();
    using var recognizer = new TranslationRecognizer(config, audioConfig);

    var result = await recognizer.RecognizeOnceAsync();
    if (result.Reason == ResultReason.TranslatedSpeech)
```



Box 1: {"fr", "de", "es"}

A common task of speech translation is to specify target translation languages, at least one is required but multiples are supported. The following code snippet sets both French and German as translation language targets. static async Task TranslateSpeechAsync()

```
{
    var translationConfig =
        SpeechTranslationConfig.FromSubscription(SPEECH__SUBSCRIPTION__KEY, SPEECH__SERVICE__REGION);
    translationConfig.SpeechRecognitionLanguage = "it-IT";

    // Translate to languages. See, https://aka.ms/speech/sttt-languages
    translationConfig.AddTargetLanguage("fr");
    translationConfig.AddTargetLanguage("de");
}
```

Box 2: TranslationRecognizer -

After you've created a SpeechTranslationConfig, the next step is to initialize a TranslationRecognizer.

Example code:

```
static async Task TranslateSpeechAsync()
{
    var translationConfig =
        SpeechTranslationConfig.FromSubscription(SPEECH_SUBSCRIPTION_KEY, SPEECH_SERVICE_REGION); var fromLanguage = "en-US"; var
    toLanguages = new List<string> { "it", "fr", "de" }; translationConfig.SpeechRecognitionLanguage = fromLanguage;
    toLanguages.ForEach(translationConfig.AddTargetLanguage); using var recognizer = new TranslationRecognizer(translationConfig);
}
```

Question #6

Topic 3

DRAG DROP -

You train a Custom Vision model used in a mobile app.

You receive 1,000 new images that do not have any associated data.

You need to use the images to retrain the model. The solution must minimize how long it takes to retrain the model.

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

Select and Place:

Actions	Answer Area
Upload the images by category.	◀
Get suggested tags.	▲
Upload all the images.	▶
Group the images locally into category folders.	▼
Review the suggestions and confirm the tags.	
Tag the images manually.	

Correct Answer:

Actions	Answer Area
	Group the images locally into category folders.
Get suggested tags.	Upload the images by category.
Upload all the images.	◀
Review the suggestions and confirm the tags.	▶
	▲
	▼

Reference:

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

You are building a Conversational Language Understanding model for an e-commerce chatbot. Users can speak or type their billing address when prompted by the chatbot.

You need to construct an entity to capture billing addresses.

Which entity type should you use?

- A. machine learned
- B. Regex
- C. list
- D. Pattern.any

Correct Answer: B

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-entity-types>

Community vote distribution

A (100%)

You are building an Azure WebJob that will create knowledge bases from an array of URLs.

You instantiate a QnAMakerClient object that has the relevant API keys and assign the object to a variable named client.

You need to develop a method to create the knowledge bases.

Which two actions should you include in the method? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create a list of FileDTO objects that represents data from the WebJob.
- B. Call the client.Knowledgebase.CreateAsync method.
- C. Create a list of QnADTO objects that represents data from the WebJob.
- D. Create a CreateKbDTO object.

Correct Answer: AC

Reference:

<https://docs.microsoft.com/en-us/rest/api/cognitiveservices-qnamaker/qnamaker4.0/knowledgebase/create>

Community vote distribution

BD (100%)

HOTSPOT -

You are developing an application that includes language translation.

The application will translate text retrieved by using a function named `getTextToBeTranslated`. The text can be in one of many languages. The content of the text must remain within the Americas Azure geography.

You need to develop code to translate the text to a single language.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
    . . .
var endpoint = "https://api.cognitive.microsofttranslator.com/translate";
var apiKey = "FF956C68B83B21B38691ABD200A4C606";
var text = getTextToBeTranslated();
var body = '[{"Text":"' + text + '"}]';
var client = new HttpClient();
client.DefaultRequestHeaders.Add("Ocp-Apim-Subscription-Key", apiKey);
var uri = endpoint + "?from=en";
var uri = endpoint + "?suggestedFrom=en";
var uri = endpoint + "?to=en";
HttpResponseMessage response;
var content = new StringContent(body, Encoding.UTF8, "application/json");
var response = await client.PutAsync(uri, content);
. . .
```

Correct Answer:

Answer Area

```
    . . .
var endpoint = "https://api.cognitive.microsofttranslator.com/translate";  
var apiKey = "FF956C68B83B21B38691ABD200A4C606";  
var text = getTextToBeTranslated();  
var body = '[{"Text":"' + text + '"}]';  
var client = new HttpClient();  
client.DefaultRequestHeaders.Add("Ocp-Apim-Subscription-Key", apiKey);  
  
var uri = endpoint + "?from=en";  
var uri = endpoint + "?suggestedFrom=en";  
var uri = endpoint + "?to=en";  
  
HttpResponseMessage response;  
var content = new StringContent(body, Encoding.UTF8, "application/json");  
var response = await client.PutAsync(uri, content);  
. . .
```

Question #10

Topic 3

You are building a conversational language understanding model.

You need to enable active learning.

What should you do?

- A. Add show-all-intents=true to the prediction endpoint query.
- B. Enable speech priming.
- C. Add log=true to the prediction endpoint query.
- D. Enable sentiment analysis.

Correct Answer: C

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-how-to-review-endpoint-utterances#log-user-queries-to-enable-active-learning>

Community vote distribution

C (100%)

HOTSPOT -

You run the following command.

```
docker run --rm -it -p 5000:5000 --memory 10g --cpus 2 \
mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment\
Eula=accept \
Billing={ENDPOINT_URI} \
ApiKey={API_KEY}
```

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**

Going to <http://localhost:5000/status> will query the Azure endpoint to verify whether the API key used to start the container is valid.

The container logging provider will write log data.

Going to <http://localhost:5000/swagger> will provide the details to access the documentation for the available endpoints.

Correct Answer:

Answer Area**Statements****Yes****No**

Going to <http://localhost:5000/status> will query the Azure endpoint to verify whether the API key used to start the container is valid.

The container logging provider will write log data.

Going to <http://localhost:5000/swagger> will provide the details to access the documentation for the available endpoints.

Box 1: Yes -

<http://localhost:5000/status> : Also requested with GET, this verifies if the api-key used to start the container is valid without causing an endpoint query.

Box 2: Yes -

The command saves container and LUIS logs to output mount at C:\output, located on container host

Box 3: Yes -

<http://localhost:5000/swagger> : The container provides a full set of documentation for the endpoints and a Try it out feature. With this feature, you can enter your settings into a web-based HTML form and make the query without having to write any code. After the query returns, an example CURL command is provided to demonstrate the HTTP headers and body format that's required.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-howto>

You are building a Language Understanding model for an e-commerce platform.

You need to construct an entity to capture billing addresses.

Which entity type should you use for the billing address?

- A. machine learned
- B. Regex
- C. geographyV2
- D. Pattern.any
- E. list

Correct Answer: B

A regular expression entity extracts an entity based on a regular expression pattern you provide. It ignores case and ignores cultural variant.

Regular expression is best for structured text or a predefined sequence of alphanumeric values that are expected in a certain format. For example:

Entity	Regular expression	Example
Flight Number	flight [A-Z]{2} [0-9]{4}	flight AS 1234
Credit Card Number	[0-9]{16}	5478789865437632

Incorrect Answers:

C: The prebuilt geographyV2 entity detects places. Because this entity is already trained, you do not need to add example utterances containing GeographyV2 to the application intents. GeographyV2 entity is supported in English culture.

The geographical locations have subtypes:

Subtype	Purpose
poi	point of interest
city	name of city
countryRegion	name of country or region
continent	name of continent
state	name of state or province

D: Pattern.any is a variable-length placeholder used only in a pattern's template utterance to mark where the entity begins and ends.

E: A list entity represents a fixed, closed set of related words along with their synonyms. You can use list entities to recognize multiple synonyms or variations and extract a normalized output for them. Use the recommend option to see suggestions for new words based on the current list.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-entity-types>

Community vote distribution

A (78%) B (16%) 6%

You need to upload speech samples to a Speech Studio project for use in training.

How should you upload the samples?

- A. Combine the speech samples into a single audio file in the .wma format and upload the file.
- B. Upload a .zip file that contains a collection of audio files in the .wav format and a corresponding text transcript file.
- C. Upload individual audio files in the FLAC format and manually upload a corresponding transcript in Microsoft Word format.
- D. Upload individual audio files in the .wma format.

Correct Answer: B

To upload your data, navigate to the Speech Studio . From the portal, click Upload data to launch the wizard and create your first dataset. You'll be asked to select a speech data type for your dataset, before allowing you to upload your data.

The default audio streaming format is WAV

Use this table to ensure that your audio files are formatted correctly for use with Custom Speech:

Property	Value
File format	RIFF (WAV)
Sample rate	8,000 Hz or 16,000 Hz
Channels	1 (mono)
Maximum length per audio	2 hours
Sample format	PCM, 16-bit
Archive format	.zip
Maximum archive size	2 GB

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/how-to-custom-speech-test-and-train>

Community vote distribution

B (100%)

You are developing a method for an application that uses the Translator API.

The method will receive the content of a webpage, and then translate the content into Greek (el). The result will also contain a transliteration that uses the Roman alphabet.

You need to create the URI for the call to the Translator API.

You have the following URI.

<https://api.cognitive.microsofttranslator.com/translate?api-version=3.0>

Which three additional query parameters should you include in the URI? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. toScript=Cyril
- B. from=el
- C. textType=html
- D. to=el
- E. textType=plain
- F. toScript=Latn

Correct Answer: CDF

C: textType is an optional parameter. It defines whether the text being translated is plain text or HTML text (used for web pages).

D: to is a required parameter. It specifies the language of the output text. The target language must be one of the supported languages included in the translation scope.

F: toScript is an optional parameter. It specifies the script of the translated text.

We use Latin (Roman alphabet) script.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-translate>

Community vote distribution

CDF (100%)

You have a chatbot that was built by using the Microsoft Bot Framework.

You need to debug the chatbot endpoint remotely.

Which two tools should you install on a local computer? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Fiddler
- B. Bot Framework Composer
- C. Bot Framework Emulator
- D. Bot Framework CLI
- E. ngrok
- F. nginx

Correct Answer: CE

Bot Framework Emulator is a desktop application that allows bot developers to test and debug bots, either locally or remotely. ngrok is a cross-platform application that "allows you to expose a web server running on your local machine to the internet." Essentially, what we'll be doing is using ngrok to forward messages from external channels on the web directly to our local machine to allow debugging, as opposed to the standard messaging endpoint configured in the Azure portal.

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-service-debug-emulator>

Community vote distribution

CE (100%)

DRAG DROP -

You are building a retail chatbot that will use a QnA Maker service.

You upload an internal support document to train the model. The document contains the following question: "What is your warranty period?"

Users report that the chatbot returns the default QnA Maker answer when they ask the following question: "How long is the warranty coverage?"

The chatbot returns the correct answer when the users ask the following question: 'What is your warranty period?'

Both questions should return the same answer.

You need to increase the accuracy of the chatbot responses.

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

Select and Place:

Actions**Answer Area**

Add a new question and answer (QnA) pair.

Retrain the model.

Add additional questions to the document.

Republish the model.

Add alternative phrasing to the question and answer (QnA) pair.

Correct Answer:**Actions****Answer Area**

Add a new question and answer (QnA) pair.

Retrain the model.

Add additional questions to the document.

Republish the model.

Add alternative phrasing to the question and answer (QnA) pair.

Step 1: Add alternative phrasing to the question and answer (QnA) pair.

Add alternate questions to an existing QnA pair to improve the likelihood of a match to a user query.

Step 2: Retrain the model.

Periodically select Save and train after making edits to avoid losing changes.

Step 3: Republish the model -

Note: A knowledge base consists of question and answer (QnA) pairs. Each pair has one answer and a pair contains all the information associated with that answer.

Reference:

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

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You build a language model by using a Language Understanding service. The language model is used to search for information on a contact list by using an intent named FindContact.

A conversational expert provides you with the following list of phrases to use for training.

- Find contacts in London.
- Who do I know in Seattle?
- Search for contacts in Ukraine.

You need to implement the phrase list in Language Understanding.

Solution: You create a new intent for location.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

An intent represents a task or action the user wants to perform. It is a purpose or goal expressed in a user's utterance.

Define a set of intents that corresponds to actions users want to take in your application.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-intent>

Community vote distribution

B (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You build a language model by using a Language Understanding service. The language model is used to search for information on a contact list by using an intent named FindContact.

A conversational expert provides you with the following list of phrases to use for training.

▫ Find contacts in London.

▫ Who do I know in Seattle?

Search for contacts in Ukraine.

You need to implement the phrase list in Language Understanding.

Solution: You create a new entity for the domain.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead use a new intent for location.

Note: An intent represents a task or action the user wants to perform. It is a purpose or goal expressed in a user's utterance.

Define a set of intents that corresponds to actions users want to take in your application.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-intent>

Community vote distribution

A (77%)

B (23%)

You are training a Language Understanding model for a user support system.

You create the first intent named GetContactDetails and add 200 examples.

You need to decrease the likelihood of a false positive.

What should you do?

A. Enable active learning.

B. Add a machine learned entity.

C. Add additional examples to the GetContactDetails intent.

D. Add examples to the None intent.

Correct Answer: A

Active learning is a technique of machine learning in which the machine learned model is used to identify informative new examples to label. In LUIS, active learning refers to adding utterances from the endpoint traffic whose current predictions are unclear to improve your model.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-glossary>

Community vote distribution

D (85%)

A (15%)

DRAG DROP -

You are building a Language Understanding model for purchasing tickets.

You have the following utterance for an intent named PurchaseAndSendTickets.

Purchase [2 audit business] tickets to [Paris] [next Monday] and send tickets to [email@domain.com]

You need to select the entity types. The solution must use built-in entity types to minimize training data whenever possible.

Which entity type should you use for each label? To answer, drag the appropriate entity types to the correct labels. Each entity type 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.

Select and Place:

Entity Types

- Email
- List
- Regex
- GeographyV2
- Machine learned

Answer Area

Paris:

email@domain.com:

2 audit business:

Entity Types

Correct Answer:

- Email
- List
- Regex
- GeographyV2
- Machine learned

Answer Area

Paris:

email@domain.com:

2 audit business:

Box 1: GeographyV2 -

The prebuilt geographyV2 entity detects places. Because this entity is already trained, you do not need to add example utterances containing GeographyV2 to the application intents.

Box 2: Email -

Email prebuilt entity for a LUIS app: Email extraction includes the entire email address from an utterance. Because this entity is already trained, you do not need to add example utterances containing email to the application intents.

Box 3: Machine learned -

The machine-learning entity is the preferred entity for building LUIS applications.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-reference-prebuilt-geographyv2> <https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-reference-prebuilt-email> <https://docs.microsoft.com/en-us/azure/cognitive-services/luis/reference-entity-machine-learned-entity>

You have the following C# method.

```
static void create_resource(string resource_name, string kind, string account_tier, string location)
{
    CognitiveServicesAccount parameters =
        new CognitiveServicesAccount(null, null, kind, location, resource_name, new CognitiveServicesAccountProperties(), new Sku(account_tier));
    var result = cog_svc_client.Accounts.Create(resource_group_name, account_tier, parameters);
}
```

You need to deploy an Azure resource to the East US Azure region. The resource will be used to perform sentiment analysis.

How should you call the method?

- A. create_resource("res1", "ContentModerator", "S0", "eastus")
- B. create_resource("res1", "TextAnalytics", "S0", "eastus")
- C. create_resource("res1", "ContentModerator", "Standard", "East US")
- D. create_resource("res1", "TextAnalytics", "Standard", "East US")

Correct Answer: B

To perform sentiment analysis, we specify TextAnalytics, not ContentModerator.

Possible SKU names include: 'F0'|'F1'|'S0'|'S1'|'S2'|'S3'|'S4'|'S5'|'S6'|'S7'|'S8'

Possible location names include: westus, eastus

Reference:

<https://docs.microsoft.com/en-us/powershell/module/az.cognitiveservices/new-azcognitiveservicesaccount>

Community vote distribution

B (100%)

You build a Conversational Language Understanding model by using the Language Services portal.

You export the model as a JSON file as shown in the following sample.

```
{  
  "text": "average amount of rain by month at chicago last year",  
  "intent": "Weather.CheckWeatherValue",  
  "entities": [  
    {  
      "entity": "Weather.WeatherRange",  
      "startPos": 0,  
      "endPos": 6,  
      "children": []  
    },  
    {  
      "entity": "Weather.WeatherCondition",  
      "startPos": 18,  
      "endPos": 21,  
      "children": []  
    },  
    {  
      "entity": "Weather.Historic",  
      "startPos": 23,  
      "endPos": 30,  
      "children": []  
    }  
  ]  
}
```

To what does the Weather.Historic entity correspond in the utterance?

- A. by month
- B. chicago
- C. rain
- D. location

Correct Answer: A

Community vote distribution

A (100%)

You are examining the Text Analytics output of an application.

The text analyzed is: `Our tour guide took us up the Space Needle during our trip to Seattle last week.'

The response contains the data shown in the following table.

Text	Category	ConfidenceScore
Tour guide	PersonType	0.45
Space Needle	Location	0.38
Trip	Event	0.78
Seattle	Location	0.78
Last week	DateTime	0.80

Which Text Analytics API is used to analyze the text?

- A. Entity Linking
- B. Named Entity Recognition
- C. Sentiment Analysis
- D. Key Phrase Extraction

Correct Answer: B

Named Entity Recognition (NER) is one of the features offered by Azure Cognitive Service for Language, a collection of machine learning and AI algorithms in the cloud for developing intelligent applications that involve written language. The NER feature can identify and categorize entities in unstructured text. For example: people, places, organizations, and quantities.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/language-service/named-entity-recognition/overview>

Community vote distribution

B (100%)

SIMULATION -

You need to configure and publish bot12345678 to support task management. The intent must be named TaskReminder. The LUDown for the intent is in the C:\Resources\LU folder.

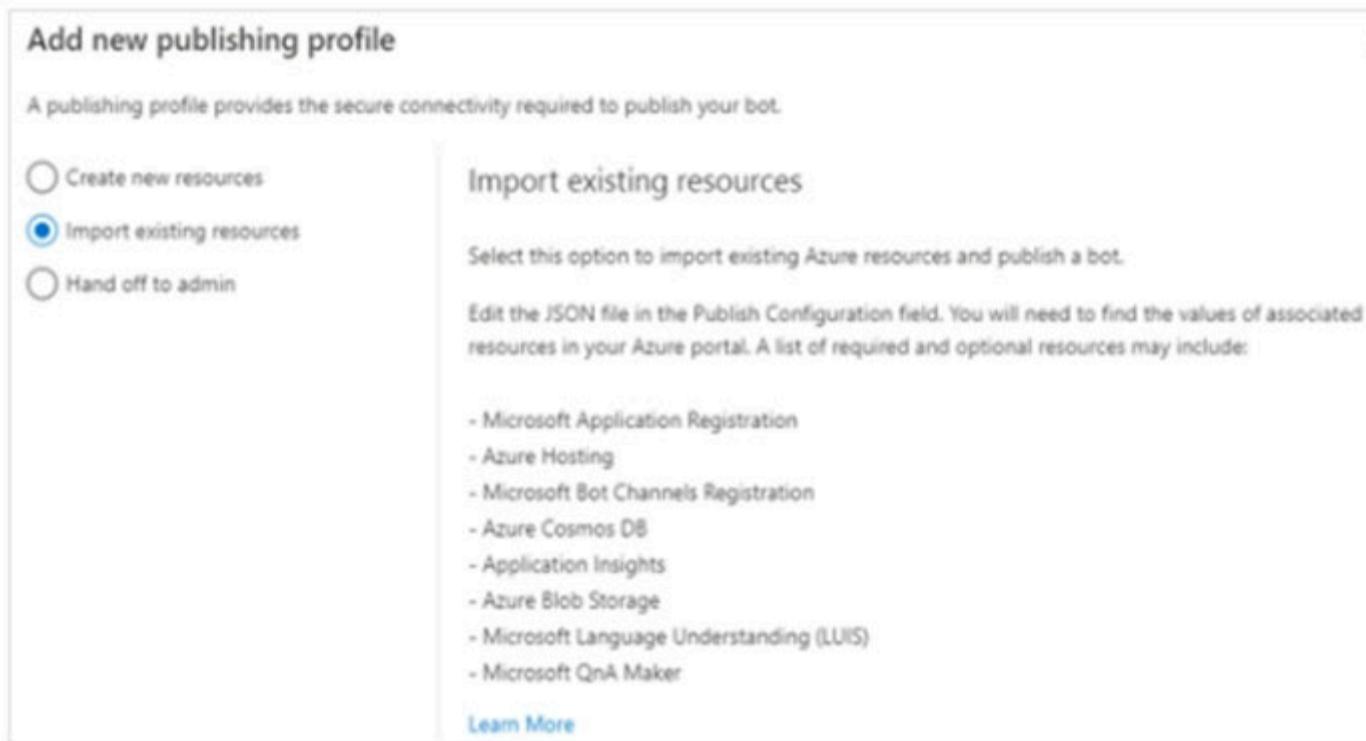
To complete this task, use the Microsoft Bot Framework Composer.

Correct Answer: See explanation below.

Step 1: Open Microsoft Bot Framework Composer

Step 2: Select the bot bot12345678

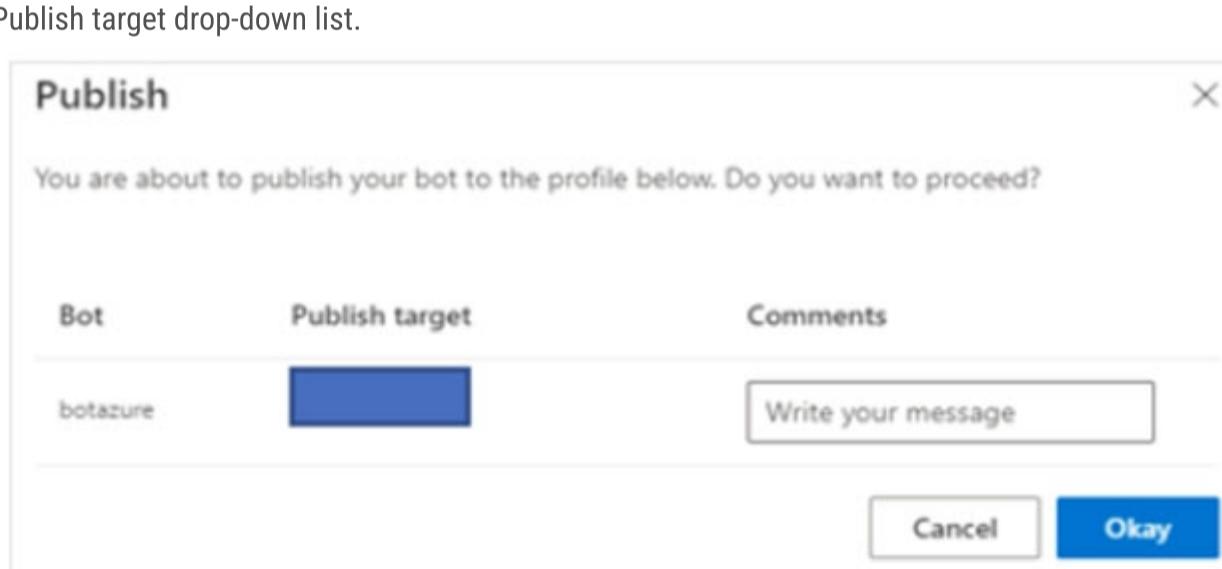
Step 3: Select Import existing resources. Read the instructions on the right side of the screen and select Next.



Step 4: Browse to the C:\Resources\LU folder and select the available .lu file

Step 5: In the pop-up window Importing existing resources, modify the JSON file content based on your resources information: Name the intent TaskReminder

Step 6: Select Publish from the Composer menu. In the Publish your bots pane, select the bot to publish (bot12345678), then select a publish profile from the Publish target drop-down list.



Reference:

<https://docs.microsoft.com/en-us/composer/how-to-publish-bot>

SIMULATION -

You need to configure bot12345678 support the French (FR-FR) language.

Export the bot to C:\Resources\Bot\Bot1.zip.

To complete this task, use the Microsoft Bot Framework Composer.

Correct Answer: See explanation below.

Step 1: Open Microsoft Bot Framework Composer

Step 2: Select the bot bot12345678

Step 3: Select Configure.

Step 4: Select the Azure Language Understanding tab

Step 5: Select the Set up Language Understanding button. The Set up Language Understanding window will appear, shown below:

Set up Language Understanding X

To understand natural language input and direct the conversation flow, your bot needs a language understanding service. [Learn more](#)

- Use existing resources
- Create and configure new Azure resources
- Generate instructions for Azure administrator

Next

Cancel

Step 6: Select Use existing resources and then select Next at the bottom of the window.

Step 7: Now select the Azure directory, Azure subscription, and Language Understanding resource name (French).

Step 8: Select Next on the bottom. Your Key and Region will appear on the next on the next window, shown below:

Select Language Understanding resources

X

The following Language Understanding keys have been successfully added to your bot project:

Key
[REDACTED]

Region
[REDACTED]

Done

Step 9. Select Done -

Reference:

<https://docs.microsoft.com/en-us/composer/concept-language-understanding> <https://docs.microsoft.com/en-us/composer/how-to-add-luis>

SIMULATION -

You need to configure and publish bot12345678 to answer questions by using the frequently asked questions (FAQ) located at <https://docs.microsoft.com/en-us/azure/bot-service/bot-service-resources-bot-framework-faq>. The solution must use bot%@lab.LabInstance.Id-qna-qna%.

To complete this task, use the Microsoft Bot Framework Composer.

Correct Answer: See explanation below.

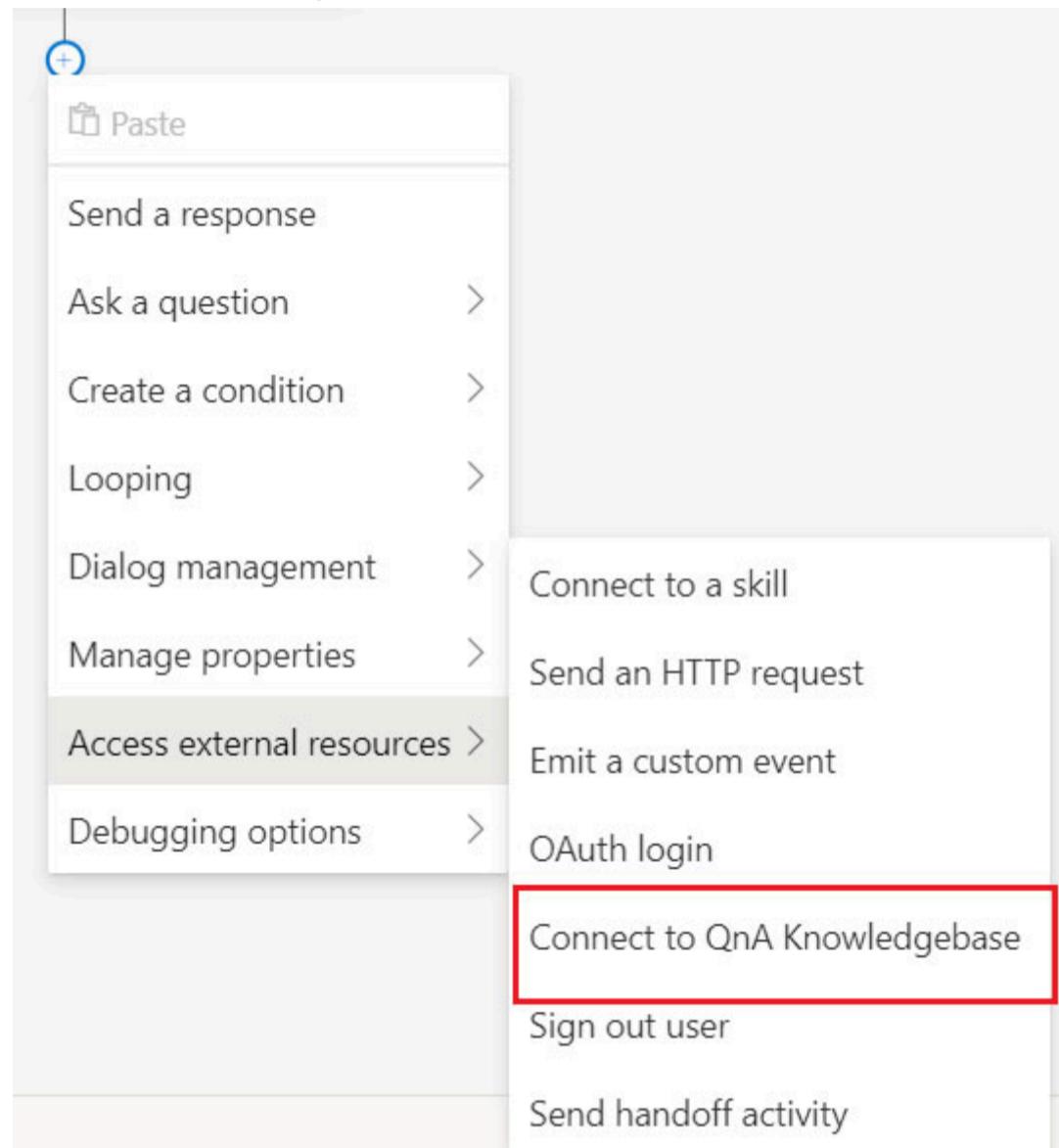
Step 1: Open Microsoft Bot Framework Composer

Step 2: Select the bot bot12345678

Step 3: Open the Configure page in Composer. Then select the Development resources, and scroll down to Azure QnA Maker.

Step 4: To access the Connect to QnA Knowledgebase action, you need to select + under the node you want to add the QnA knowledge base and then select

Connect to QnAKnowledgeBase from the Access external resources action menu.



Step 5: Review the QnA Maker settings panel after selecting the QnA Maker dialog.

Use:

Instance: bot%@lab.LabInstance.Id-qna-qna%

Reference:

<https://docs.microsoft.com/en-us/composer/how-to-create-qna-kb> <https://docs.microsoft.com/en-us/composer/how-to-add-qna-to-bot>

You need to measure the public perception of your brand on social media by using natural language processing.

Which Azure service should you use?

- A. Language service
- B. Content Moderator
- C. Computer Vision
- D. Form Recognizer

Correct Answer: A

Azure Cognitive Service for Language is a cloud-based service that provides Natural Language Processing (NLP) features for understanding and analyzing text.

Use this service to help build intelligent applications using the web-based Language Studio, REST APIs, and client libraries.

Note: Natural language processing (NLP) has many uses: sentiment analysis, topic detection, language detection, key phrase extraction, and document categorization.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/language-service/overview>

Community vote distribution

A (100%)

HOTSPOT -

You are developing an application that includes language translation.

The application will translate text retrieved by using a function named `get_text_to_be_translated`. The text can be in one of many languages. The content of the text must remain within the Americas Azure geography.

You need to develop code to translate the text to a single language.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
    . . .
    api_key = "FF956C68B83B21B38691ABD200A4C606"
    text = get_text_to_be_translated()
    headers = {
        'Content-Type': 'application/json',
        'Ocp-Apim-Subscription-Key': api_key
    }
    body = {
        'Text': text
    }
    conn = httpplib.HTTPSConnection
        ("api.cogninve.microsofttranslator.com")
        ("api-apc.cognitive.microsofttranslator.com")
        ("api-nam.cognitive.microsofttranslator.com")
    conn.request("POST",
        "/translate?fr=nn&to=en"
        "/translate?suggestFrom=en"
        "/translate?to=en"
        "/detect?to=en"
        "/detect?from=en"
    )
    response = conn.getresponse()
    response_data = response.read()
    . . .
```

Correct Answer:

Answer Area

```
    . . .
    api_key = "FF956C68B83B21B38691ABD200A4C606"
    text = get_text_to_be_translated()
    headers = {
        'Content-Type': 'application/json',
        'Ocp-Apim-Subscription-Key': api_key
    }
    body = {
        'Text': text
    }
    conn = httplib.HTTPSConnection
        ("api.cogninve.microsofttranslator.com")
        ("api-apc.cognitive.microsofttranslator.com")
        ("api-nam.cognitive.microsofttranslator.com")
    conn.request("POST",
        "/translate?fr=en&to=en"
        "/translate?suggestedFrom=en"
        "/translate?to=en" "/translate?to=en"
        "/detect?to=en"
        "/detect?from=en"
    )
    response = conn.getresponse()
    response_data = response.read()
    . . .
```

Box 1: ("api-nam.cognitive.microsofttranslator.com")

Geography USA: api-nam.cognitive.microsofttranslator.com

Datacenters: East US, South Central US, West Central US, and West US 2

Box 2: "/translate?to=en"

Must specify the language which it is being translated to. The 'to' parameter is required

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-reference> <https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-translate>

You have the following data sources:

- Finance: On-premises Microsoft SQL Server database
- Sales: Azure Cosmos DB using the Core (SQL) API
- Logs: Azure Table storage
- HR: Azure SQL database

You need to ensure that you can search all the data by using the Azure Cognitive Search REST API.

What should you do?

- A. Migrate the data in HR to Azure Blob storage.
- B. Migrate the data in HR to the on-premises SQL server.
- C. Export the data in Finance to Azure Data Lake Storage.
- D. Ingest the data in Logs into Azure Sentinel.

Correct Answer: C

In Azure Cognitive Search, a data source is used with indexers, providing the connection information for ad hoc or scheduled data refresh of a target index, pulling data from supported Azure data sources.

Note: Supported data sources -

Indexers crawl data stores on Azure and outside of Azure.

Amazon Redshift (in preview)

Azure Blob Storage -

Azure Cosmos DB -

Azure Data Lake Storage Gen2 -

Azure MySQL (in preview)

Azure SQL Database -

Azure Table Storage -

Elasticsearch (in preview)

PostgreSQL (in preview)

Salesforce Objects (in preview)

Salesforce Reports (in preview)

Smartsheet (in preview)

Snowflake (in preview)

Azure SQL Managed Instance -

SQL Server on Azure Virtual Machines

Azure Files (in preview)

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-indexer-overview#supported-data-sources>

Community vote distribution

C (100%)

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to create and publish a Language Understanding (classic) model named 1u12345678. The model will contain an intent of Travel that has an utterance of

Boat.

To complete this task, sign in to the Language Understanding portal at <http://www.luis-ai/>.

Correct Answer: See explanation below.

Create your LUIS model -

1. You should navigate to your LUIS.ai management portal and create a new application. In the portal create a model.

Model name: 1u12345678 -

2. Define one intent as "Travel" and add an example utterances of Boat.

The screenshot shows the LUIS.ai management portal interface. The top navigation bar includes 'Scheduling (v 0.1) ▾', 'DASHBOARD', 'BUILD' (which is selected), 'MANAGE', and buttons for 'Train', 'Test', and 'Publish'. On the left, a sidebar titled 'App Assets' lists 'Intents', 'Entities', 'Improve app performance' (with 'Review endpoint utterances'), 'Phrase lists', and 'Patterns'. At the bottom of the sidebar is a 'PREVIEW' section labeled 'Prebuilt Domains'. The main content area is titled 'Schedule appointment' with a red border. It features a text input field with placeholder 'Type about 5 examples of what a user might say and hit Enter'. Below it is a table for utterances, with a checkbox for 'Utterance'. Several examples are listed, with the first five highlighted by a red box: 'i want to schedule with my doctor', 'can you book an appointment next week for me ?', 'how do i make a new booking ?', 'i want to schedule an appointment', and 'how do i book an appointment ?'. To the right of the table are 'Labeled intent' dropdowns, each set to 'Schedule ap...'. At the bottom, there's a section for 'Entities used in this intent' with a table for 'Name' and 'Labeled utterances', both currently empty. A note says 'There are no entities in use.'

3. Publish the model

In order to use your model, you have to publish it. This is as easy as hitting the Publish tab, selecting between the production or staging environments, and hitting

Publish. As you can see from this page, you can also choose to enable sentiment analysis, speech priming to improve speech recognition, or the spell checker.

For now, you can leave those unchecked.

Reference:

https://docs.microsoft.com/en-us/azure/health-bot/language_model_howto <https://www.codemag.com/article/1809021/Natural-Language-Understanding-with-LUIS>

Question #31

Topic 3

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to create a version of the 1u12345678 Language Understanding (classic) model. The new version must have a version name of 1.0 and must be active.

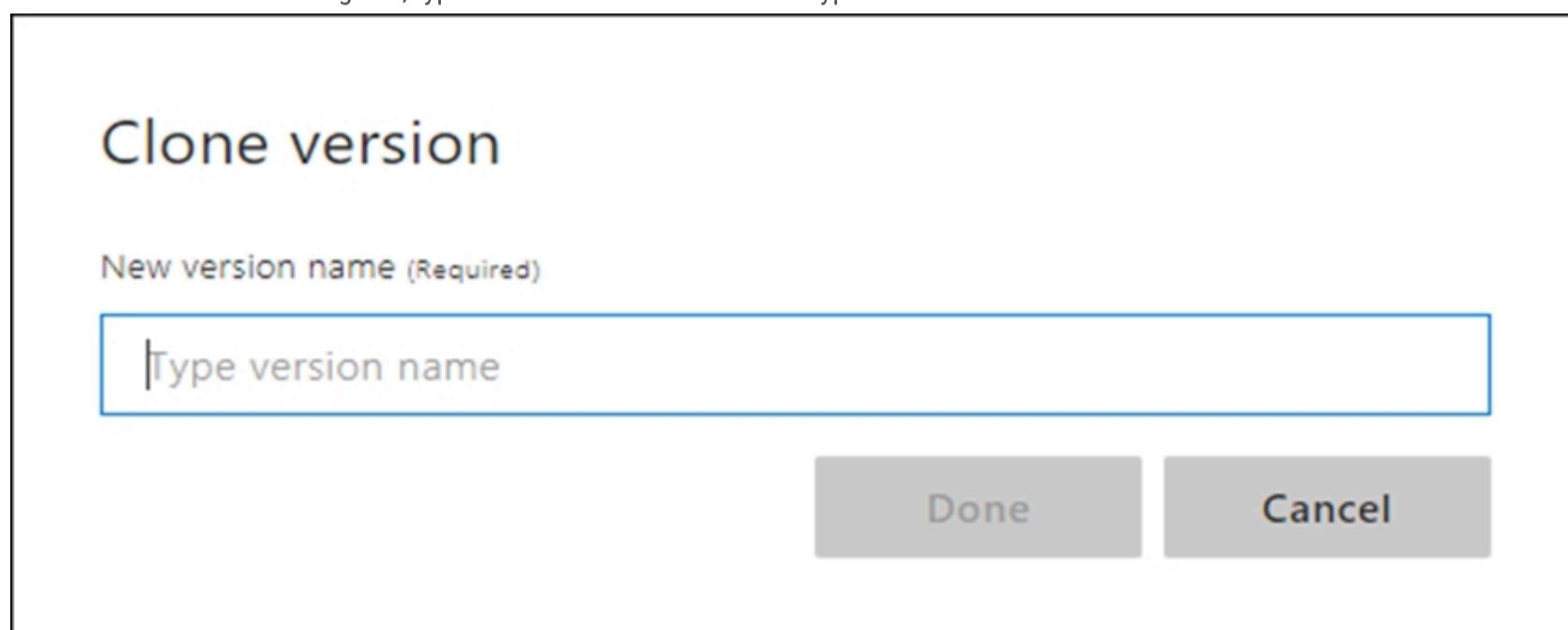
To complete this task, sign in to the Language Understanding portal at <https://www.luis.ai/>.

Correct Answer: See explanation below.

Step 1: Clone a version -

1. Select the version you want to clone (1u12345678) then select Clone from the toolbar.

2. In the Clone version dialog box, type a name for the new version. Type 1.0



Step 2: Set active version -

Select a version from the list, then select Activate from the toolbar.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-how-to-manage-versions>

You have a Language service resource that performs the following:

- Sentiment analysis
- Named Entity Recognition (NER)
- Personally Identifiable Information (PII) identification

You need to prevent the resource from persisting input data once the data is analyzed.

Which query parameter in the Language service API should you configure?

- A. model-version
- B. piiCategories
- C. showStats
- D. loggingOptOut

Correct Answer: D

Community vote distribution

D (100%)

You have an Azure Cognitive Services model named Model1 that identifies the intent of text input.

You develop an app in C# named App1.

You need to configure App1 to use Model1.

Which package should you add to App1?

- A. Universal.Microsoft.CognitiveServices.Speech
- B. SpeechServicesToolkit
- C. Azure.AI.Language.Conversations
- D. Xamarin.Cognitive.Speech

Correct Answer: A

Community vote distribution

C (100%)

HOTSPOT

You are building content for a video training solution.

You need to create narration to accompany the video content. The solution must use Custom Neural Voice.

What should you use to create a custom neural voice, and which service should you use to generate the narration? To answer, select the appropriate options in the answer area.

NOTE: Each correct answer is worth one point.

Answer Area

Custom neural voice:

- Microsoft Bot Framework Composer
- The Azure portal
- The Language Understanding portal
- The Speech Studio portal

Narration:

- Language Understanding
- Speaker Recognition
- Speech-to-text
- Text-to-speech

Answer Area

Custom neural voice:

- Microsoft Bot Framework Composer
- The Azure portal
- The Language Understanding portal
- The Speech Studio portal**

Correct Answer:

Narration:

- Language Understanding
- Speaker Recognition
- Speech-to-text
- Text-to-speech**

HOTSPOT

You are building a call handling system that will receive calls from French-speaking and German-speaking callers. The system must perform the following tasks:

- Capture inbound voice messages as text.
- Replay messages in English on demand.

Which Azure Cognitive Services services should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

To capture messages:

- Speaker Recognition
- Speech-to-text
- Text-to-speech
- Translator

To replay messages:

- Speech-to-text only
- Speech-to-text and Language
- Speaker Recognition and Language
- Text-to-speech and Language
- Text-to-speech and Translator

Answer Area

To capture messages:

- Speaker Recognition
- Speech-to-text
- Text-to-speech
- Translator

Correct Answer:

To replay messages:

- Speech-to-text only
- Speech-to-text and Language
- Speaker Recognition and Language
- Text-to-speech and Language
- Text-to-speech and Translator

You are building a social media extension that will convert text to speech. The solution must meet the following requirements:

- Support messages of up to 400 characters.
- Provide users with multiple voice options.
- Minimize costs.

You create an Azure Cognitive Services resource.

Which Speech API endpoint provides users with the available voice options?

- A. <https://uksouth.api.cognitive.microsoft.com/speechtotext/v3.0/models/base>
- B. <https://uksouth.customvoice.api.speech.microsoft.com/api/texttospeech/v3.0/longaudiosynthesis/voices>
- C. <https://uksouth.tts.speech.microsoft.com/cognitiveservices/voices/list>
- D. <https://uksouth.voice.speech.microsoft.com/cognitiveservices/v1?deploymentId={deploymentId}>

Correct Answer: D

Community vote distribution

C (95%) 5%

You develop a custom question answering project in Azure Cognitive Service for Language. The project will be used by a chatbot.

You need to configure the project to engage in multi-turn conversations.

What should you do?

- A. Add follow-up prompts.
- B. Enable active learning.
- C. Add alternate questions.
- D. Enable chit-chat.

Correct Answer: A

Community vote distribution

A (100%)

HOTSPOT

You are building a solution that students will use to find references for essays.

You use the following code to start building the solution.

```
using Azure;
using System;
using Azure.AI.TextAnalytics;

private static readonly AzureKeyCredential credentials = new AzureKeyCredential("<key>");
private static readonly Uri endpoint = new Uri("<endpoint>");

static void EntityLinker(TextAnalyticsClient client)
{
    var response = client.RecognizeLinkedEntities(
        "Our tour guide took us up the Space Needle during our trip to Seattle last week.");
}
```

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 code will detect the language of documents.	<input type="radio"/>	<input type="radio"/>
The url attribute returned for each linked entity will be a Bing search link.	<input type="radio"/>	<input type="radio"/>
The matches attribute returned for each linked entity will provide the location in a document where the entity is referenced.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
The code will detect the language of documents.	<input type="radio"/>	<input checked="" type="radio"/>
Correct Answer: The url attribute returned for each linked entity will be a Bing search link.	<input checked="" type="radio"/>	<input type="radio"/>
The matches attribute returned for each linked entity will provide the location in a document where the entity is referenced.	<input checked="" type="radio"/>	<input type="radio"/>

You train a Conversational Language Understanding model to understand the natural language input of users.

You need to evaluate the accuracy of the model before deploying it.

What are two methods you can use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. From the language authoring REST endpoint, retrieve the model evaluation summary.
- B. From Language Studio, enable Active Learning, and then validate the utterances logged for review.
- C. From Language Studio, select Model performance.
- D. From the Azure portal, enable log collection in Log Analytics, and then analyze the logs.

Correct Answer: AC

Community vote distribution

AC (86%)	14%
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DRAG DROP

You develop an app in C# named App1 that performs speech-to-speech translation.

You need to configure App1 to translate English to German.

How should you complete the SpeechTranslationConfig object? To answer, drag the appropriate values to the correct targets. Each value 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.

Values
addTargetLanguage
speechSynthesisLanguage
speechRecognitionLanguage
voiceName

Answer Area

```
var translationConfig = SpeechTranslationConfig.FromSubscription(SPEECH_SUBSCRIPTION_KEY, SPEECH_SERVICE_REGION);
translationConfig.  = "en-US";
translationConfig.  ("de");
```

Correct Answer:

Answer Area

```
var translationConfig = SpeechTranslationConfig.FromSubscription(SPEECH_SUBSCRIPTION_KEY, SPEECH_SERVICE_REGION);
translationConfig.  = "en-US";
translationConfig.  ("de");
```

You have an Azure subscription that contains an Azure Cognitive Service for Language resource.

You need to identify the URL of the REST interface for the Language service.

Which blade should you use in the Azure portal?

- A. Identity
- B. Keys and Endpoint
- C. Networking
- D. Properties

Correct Answer: B

Community vote distribution

B (100%)

DRAG DROP

You are building a transcription service for technical podcasts.

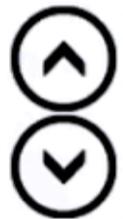
Testing reveals that the service fails to transcribe technical terms accurately.

You need to improve the accuracy of the service.

Which five 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.

Actions

- Deploy the model.
- Create a Custom Speech project.
- Upload training datasets.
- Create a speech-to-text model.
- Create a Speaker Recognition model.
- Train the model.
- Create a Conversational Language Understanding model.

Answer Area

Correct Answer:

- Answer Area**
- Create a Custom Speech project.
 - Create a speech-to-text model.
 - Upload training datasets.
 - Train the model.
 - Deploy the model.

You are building a retail kiosk system that will use a custom neural voice.

You acquire audio samples and consent from the voice talent.

You need to create a voice talent profile.

What should you upload to the profile?

- A. a .zip file that contains 10-second .wav files and the associated transcripts as .txt files
- B. a five-minute .flac audio file and the associated transcript as a .txt file
- C. a .wav or .mp3 file of the voice talent consenting to the creation of a synthetic version of their voice
- D. a five-minute .wav or .mp3 file of the voice talent describing the kiosk system

Correct Answer: C

Community vote distribution

C (75%)

A (25%)

DRAG DROP

You have a Language Understanding solution that runs in a Docker container.

You download the Language Understanding container image from the Microsoft Container Registry (MCR).

You need to deploy the container image to a host computer.

Which three 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.

Actions

- From the host computer, move the package file to the Docker input directory.
- From the Language Understanding portal, export the solution as a package file.
- From the host computer, build the container and specify the output directory.
- From the host computer, run the container and specify the input directory.
- From the Language Understanding portal, retrain the model.

Answer Area



Answer Area

- From the Language Understanding portal, export the solution as a package file.
- From the host computer, move the package file to the Docker input directory.
- From the host computer, run the container and specify the input directory.

Correct Answer:

- From the host computer, move the package file to the Docker input directory.
- From the host computer, run the container and specify the input directory.

HOTSPOT

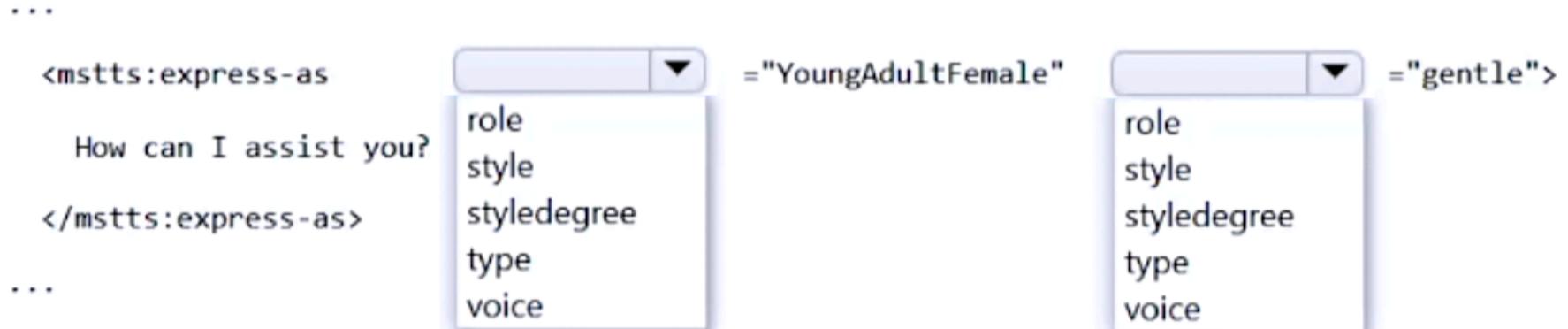
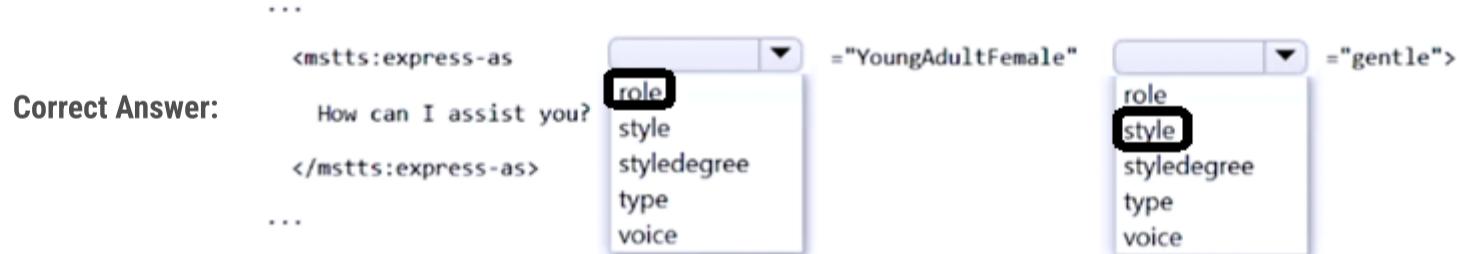
You are building a text-to-speech app that will use a custom neural voice.

You need to create an SSML file for the app. The solution must ensure that the voice profile meets the following requirements:

- Expresses a calm tone
- Imitates the voice of a young adult female

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area**Answer Area**

HOTSPOT

You have a collection of press releases stored as PDF files.

You need to extract text from the files and perform sentiment analysis.

Which service should you use for each task? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Extract text:

Azure Cognitive Search
Computer Vision
Form Recognizer

Perform sentiment analysis:

Azure Cognitive Search
Computer Vision
Form Recognizer
Language

Answer Area

Extract text:

Azure Cognitive Search
Computer Vision
Form Recognizer

Correct Answer:

Perform sentiment analysis:

Azure Cognitive Search
Computer Vision
Form Recognizer
Language

You have a text-based chatbot.

You need to enable content moderation by using the Text Moderation API of Content Moderator.

Which two service responses should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. personal data
- B. the adult classification score
- C. text classification
- D. optical character recognition (OCR)
- E. the racy classification score

Correct Answer: AC

Community vote distribution

AC (86%)

14%

HOTSPOT

You are developing a text processing solution.

You have the function shown below.

```
static void GetKeyWords(TextAnalyticsClient textAnalyticsClient, string text)
{
    var response = textAnalyticsClient.RecognizeEntities (text);
    Console.WriteLine("Key words:");

    foreach (CategorizedEntity entity in response.Value)
    {
        Console.WriteLine($"\\t{entity.Text}");
    }
}
```

For the second argument, you call the function and specify the following string.

Our tour of Paris included a visit to the Eiffel Tower

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

Answer Area

Statements	Yes	No
The output will include the following words: our and included.	<input type="radio"/>	<input type="radio"/>
The output will include the following words: Paris, Eiffel, and Tower.	<input type="radio"/>	<input type="radio"/>
The function will output all the key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>

Answer Area**Correct Answer:**

Statements	Yes	No
The output will include the following words: our and included.	<input type="radio"/>	<input checked="" type="radio"/>
The output will include the following words: Paris, Eiffel, and Tower.	<input checked="" type="radio"/>	<input type="radio"/>
The function will output all the key phrases from the input string to the console.	<input checked="" type="radio"/>	<input type="radio"/>

HOTSPOT

You are building an Azure web app named App1 that will translate text from English to Spanish.

You need to use the Text Translation REST API to perform the translation. The solution must ensure that you have data sovereignty in the United States.

How should you complete the URI? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

https:// / ?api-version=3.0&to=es

api.cognitive.microsofttranslator.com	detect
api-nam.cognitive.microsofttranslator.com	languages
api-nam.cognitiveservices.azure.com	text-to-speech
eastus.api.cognitive.microsoft.com	translate

Answer Area**Correct Answer:**

https:// / ?api-version=3.0&to=es

api.cognitive.microsofttranslator.com	detect
api-nam.cognitive.microsofttranslator.com	languages
api-nam.cognitiveservices.azure.com	text-to-speech
eastus.api.cognitive.microsoft.com	translate

DRAG DROP

You have a Docker host named Host1 that contains a container base image.

You have an Azure subscription that contains a custom speech-to-text model named model1.

You need to run model1 on Host1.

Which three 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.

Actions

- Retrain the model.
- Request approval to run the container.
- Export model1 to Host1.
- Run the container.
- Configure disk logging.

Answer Area**Answer Area****Correct Answer:**

Request approval to run the container.
Retrain the model.
Run the container.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You build a language model by using a Conversational Language Understanding. The language model is used to search for information on a contact list by using an intent named FindContact.

A conversational expert provides you with the following list of phrases to use for training.

- Find contacts in London.
- Who do I know in Seattle?
- Search for contacts in Ukraine.

You need to implement the phrase list in Conversational Language Understanding.

Solution: You create a new utterance for each phrase in the FindContact intent.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (58%)

A (42%)

DRAG DROP

You have a question answering project in Azure Cognitive Service for Language.

You need to move the project to a Language service instance in a different Azure region.

Which three 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.

Actions
From the new Language service instance, train and publish the project.
From the new Language service instance, import the project file.
From the new Language service instance, enable custom text classification.
From the original Language service instance, export the existing project.
From the new Language service instance, regenerate the keys.
From the original Language service instance, train and publish the model.

Answer Area



Answer Area
From the original Language service instance, export the existing project.
From the new Language service instance, import the project file.
From the new Language service instance, train and publish the project.

Correct Answer:

DRAG DROP

You are building a customer support chatbot.

You need to configure the bot to identify the following:

- Code names for internal product development
- Messages that include credit card numbers

The solution must minimize development effort.

Which Azure Cognitive Service for Language feature should you use for each requirement? To answer, drag the appropriate features to the correct requirements. Each feature 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.

Features	Answer Area
Custom named entity recognition (NER)	Identify code names for internal product development: <input type="text"/>
Key phrase extraction	Identify messages that include credit card numbers: <input type="text"/>
Language detection	
Named Entity Recognition (NER)	
Personally Identifiable Information (PII) detection	
Sentiment analysis	

Correct Answer:

Answer Area
Identify code names for internal product development: <input checked="" type="text"/> Custom named entity recognition (NER)
Identify messages that include credit card numbers: <input checked="" type="text"/> Personally Identifiable Information (PII) detection

HOTSPOT

You are building an app by using the Speech SDK. The app will translate speech from French to German by using natural language processing.

You need to define the source language and the output language.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
var speechTranslationConfig =  
    SpeechTranslationConfig.FromSubscription(speechKey, speechRegion);  
  
speechTranslationConfig.  
    AddTargetLanguage("fr")  
    .  
        SpeechRecognitionLanguage  
        SpeechSynthesisLanguage  
        TargetLanguages  
        VoiceName  
  
speech_translation_config.  
    AddTargetLanguage("de")  
    .  
        AddTargetLanguage  
        SpeechRecognitionLanguage  
        SpeechSynthesisLanguage  
        TargetLanguages  
        VoiceName
```

Answer Area

```
var speechTranslationConfig =  
    SpeechTranslationConfig.FromSubscription(speechKey, speechRegion);  
  
speechTranslationConfig.  
    AddTargetLanguage("fr")  
    .  
        SpeechRecognitionLanguage  
        SpeechSynthesisLanguage  
        TargetLanguages  
        VoiceName  
  
speech_translation_config.  
    AddTargetLanguage("de")  
    .  
        AddTargetLanguage  
        SpeechRecognitionLanguage  
        SpeechSynthesisLanguage  
        TargetLanguages  
        VoiceName
```

Correct Answer:

DRAG DROP

You have a collection of Microsoft Word documents and PowerPoint presentations in German.

You need to create a solution to translate the files to French. The solution must meet the following requirements:

- Preserve the original formatting of the files.
- Support the use of a custom glossary.

You create a blob container for German files and a blob container for French files. You upload the original files to the container for German files.

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

Actions	Answer Area
Perform an asynchronous translation by using the list of files to be translated.	
Perform an asynchronous translation by using the document translation specification.	
Generate a list of files to be translated.	>
Upload a glossary file to the container for German files.	<
Upload a glossary file to the container for French files.	^
Define a document translation specification that has a French target.	▼

Correct Answer:	Answer Area
	Upload a glossary file to the container for German files.
	Define a document translation specification that has a French target.
	Perform an asynchronous translation by using the document translation specification.

You have the following C# function.

```
static void MyFunction(TextAnalyticsClient textAnalyticsClient, string text)
{
    var response = textAnalyticsClient.ExtractKeyPhrases(text);
    Console.WriteLine("Key phrases:");

    foreach (string keyphrase in response.Value)
    {
        Console.WriteLine($"{keyphrase}");
    }
}
```

You call the function by using the following code.

```
MyFunction(textAnalyticsClient, "the quick brown fox jumps over the lazy dog");
```

Which output will you receive?

- A. The quick -
The lazy
- B. the quick brown fox jumps over the lazy dog
- C. jumps over the
- D. quick brown fox
lazy dog

Correct Answer: D

Community vote distribution

D (100%)

You have the following Python method.

```
def create_resource(resource_name, kind, account_tier, location):
    parameters = CognitiveServicesAccount(sku=Sku(name=account_tier), kind=kind, location=location, properties={})
    result = cogSvcClient.accounts.create(resource_group_name, resource_name, parameters)
```

You need to deploy an Azure resource to the East US Azure region. The resource will be used to perform sentiment analysis.

How should you call the method?

- A. create_resource("res1", "TextAnalytics", "Standard", "East US")
- B. create_resource("res1", "ContentModerator", "S0", "eastus")
- C. create_resource("res1", "ContentModerator", "Standard", "East US")
- D. create_resource("res1", "TextAnalytics", "S0", "eastus")

Correct Answer: D

Community vote distribution

D (100%)

DRAG DROP

You develop a Python app named App1 that performs speech-to-speech translation.

You need to configure App1 to translate English to German.

How should you complete the SpeechTranslationConfig object? To answer, drag the appropriate values to the correct targets. Each value 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.

Values	Answer Area
add_target_language	def translate_speech_to_text(): translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_region)
speech_synthesis_language	translation_config. <input type="text"/> Value = "en-US";
speech_recognition_language	translation_config. <input type="text"/> Value ("de");
voice_name	

Correct Answer:

```
def translate_speech_to_text():
    translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_region)
    translation_config.  speech_recognition_language = "en-US";
    translation_config.  speech_synthesis_language ("de");
```

HOTSPOT

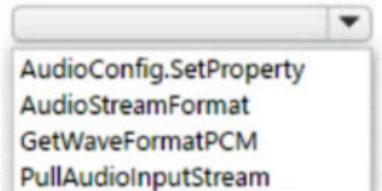
You are developing a streaming Speech to Text solution that will use the Speech SDK and MP3 encoding.

You need to develop a method to convert speech to text for streaming MP3 data.

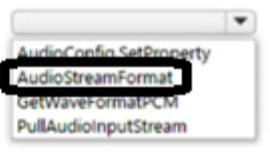
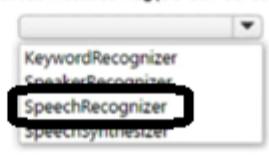
How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
audio_format = speechsdk.audio.  
stream = speechsdk.audio.PullAudioInputStream(stream_format=audio_format, pull_stream_callback=callback)  
speech_config = speechsdk.SpeechConfig("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus")  
audio_config = speechsdk.audio.AudioConfig(stream=stream)  
recognizer = speechsdk.  
result = recognizer.recognize_once()  
text = result.text
```

Answer Area

```
audio_format = speechsdk.audio.  
stream = speechsdk.audio.PullAudioInputStream(stream_format=audio_format, pull_stream_callback=callback)  
speech_config = speechsdk.SpeechConfig("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus")  
audio_config = speechsdk.audio.AudioConfig(stream=stream)  
recognizer = speechsdk.  
result = recognizer.recognize_once()  
text = result.text
```

Correct Answer:

HOTSPOT

You are building a chatbot.

You need to use the Content Moderator API to identify aggressive and sexually explicit language.

Which three settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Content Moderator - Moderate Text - Screen

The operation detects profanity in more than 100 languages and match against custom and shared blacklists.

Host

Name	[resource name].cognitiveser
Resource Name	<input type="text"/>

Query parameters

autocorrect	<input type="text"/> Value	✖ Remove parameter
PII	<input type="text"/> Value	✖ Remove parameter
listId	<input type="text"/> Value	✖ Remove parameter
classify	<input type="text"/> Value	✖ Remove parameter
language	<input type="text"/> Value	✖ Remove parameter

[✚ Add parameter](#)

Headers

Content-Type	<input type="text"/> text/plain	✖ Remove header
Ocp-Apim-Subscription-Key	<input type="text"/> Value	

Answer Area

Content Moderator - Moderate

Text - Screen

The operation detects profanity in more than 100 languages and match against custom and shared blacklists.

Host

Name

[resource name].cognitiveser ▾

Resource Name

Query parameters

Correct Answer:

autocorrect

Value

Remove parameter

PII

Value

Remove parameter

listid

Value

Remove parameter

classify

Value

Remove parameter

language

Value

Remove parameter

Add parameter

Headers

Content-Type

text/plain

Remove header

Ocp-Apim-Subscription-Key

Value

Question #61

Topic 3

You are developing an app that will use the Decision and Language APIs.

You need to provision resources for the app. The solution must ensure that each service is accessed by using a single endpoint and credential.

Which type of resource should you create?

- A. Language
- B. Speech
- C. Azure Cognitive Services
- D. Content Moderator

Correct Answer: C

Community vote distribution

C (100%)

You are building a chatbot.

You need to ensure that the bot will recognize the names of your company's products and codenames. The solution must minimize development effort.

Which Azure Cognitive Service for Language service should you include in the solution?

- A. custom text classification
- B. entity linking
- C. custom Named Entity Recognition (NER)
- D. key phrase extraction

Correct Answer: C

Community vote distribution

C (100%)

You have an Azure subscription that contains an Azure App Service app named App1.

You provision a multi-service Azure Cognitive Services resource named CSAccount1.

You need to configure App1 to access CSAccount1. The solution must minimize administrative effort.

What should you use to configure App1?

- A. a system-assigned managed identity and an X.509 certificate
- B. the endpoint URI and an OAuth token
- C. the endpoint URI and a shared access signature (SAS) token
- D. the endpoint URI and subscription key

Correct Answer: D

You have an Azure subscription that contains a multi-service Azure Cognitive Services Translator resource named Translator1.

You are building an app that will translate text and documents by using Translator1.

You need to create the REST API request for the app.

Which headers should you include in the request?

- A. the access control request, the content type, and the content length
- B. the subscription key and the client trace ID
- C. the resource ID and the content language
- D. the subscription key, the subscription region, and the content type

Correct Answer: D

Community vote distribution

D (100%)

You have a file share that contains 5,000 images of scanned invoices.

You need to analyze the images. The solution must extract the following data:

- Invoice items
- Sales amounts
- Customer details

What should you use?

- A. Custom Vision
- B. Azure AI Computer Vision
- C. Azure AI Immersive Reader
- D. Azure AI Document Intelligence

Correct Answer: D

Community vote distribution

D (100%)

HOTSPOT

You are developing a text processing solution.

You have the function shown below.

```
def get_key_words(textAnalyticsClient, text):  
  
    response = textAnalyticsClient.recognize_entities(documents = [text])[0]  
    print("Key Words:")  
    for entity in response.entities:  
        print("\t\t", entity.text)
```

For the second argument, you call the function and specify the following string.

Our tour of Paris included a visit to the Eiffel Tower

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

Answer Area**Statements**

	Yes	No
The output will include the following words: our and included.	<input type="radio"/>	<input type="radio"/>
The output will include the following words: Paris, Eiffel, and Tower.	<input type="radio"/>	<input type="radio"/>
The function will output all the key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>

Answer Area**Statements**

Correct Answer: The output will include the following words: our and included.

Yes	No
<input type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

HOTSPOT

You are developing a text processing solution.

You develop the following method.

```
def get_key_phrases(text_analytics_client, text):
    response = text_analytics_client.extract_key_phrases(text, language="en")
    print('Key phrases:')
    for keyphrase in response.key_phrases:
        print(f'\t{keyphrase}')
```

You call the method by using the following code.

```
get_key_phrases(text_analytics_client, "the cat sat on the mat")
```

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 call will output key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input type="radio"/>

Answer Area**Statements**

Correct Answer: The call will output key phrases from the input string to the console.

Yes

No



The output will contain the following words: the, cat, sat, on, and mat.



The output will contain the confidence level for key phrases.



HOTSPOT

You are developing a service that records lectures given in English (United Kingdom).

You have a method named append_to_transcript_file that takes translated text and a language identifier.

You need to develop code that will provide transcripts of the lectures to attendees in their respective language. The supported languages are English, French, Spanish, and German.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
speech_key = os.environ['SPEECH_SUBSCRIPTION_KEY']
service_region = os.environ['SPEECH_SERVICE_REGION']

def translate_speech():
    translation_config = speechsdk.translation.SpeechTranslationConfig(
        subscription=speech_key, region=service_region)
    translation_config.speech_recognition_language = "en-GB"
    languages = [
        ('en-GB'),
        ('fr', 'de', 'es')
        ('French', 'Spanish', 'German')
        ('languages')]

    for language in languages: translation_config.add_target_language(language)
    audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
    recognizer = speechsdk.translation.
        IntentRecognizer()
        SpeakerRecognizer()
        SpeechSynthesizer()
        TranslationRecognizer()

    translation_config=translation_config, audio_config=audio_config)

    result = recognizer.recognize_once()

    if result.reason == speechsdk.ResultReason.TranslatedSpeech:
        append_to_transcript_file(result.text, "en")
        for language in result.translations:
            append_to_transcript_file(result.translations[language], language)
```

Answer Area

```
speech_key = os.environ['SPEECH_SUBSCRIPTION_KEY']
service_region = os.environ['SPEECH_SERVICE_REGION']
def translate_speech():
    translation_config = speechsdk.translation.SpeechTranslationConfig(
        subscription=speech_key, region=service_region)
    translation_config.speech_recognition_language = "en-GB"
    languages = [
        ('en-GB')
        ([ 'fr', 'de', 'es' ])
        ([ French, Spanish, German])
        ([languages])]
```

Correct Answer:

```
for language in languages: translation_config.add_target_language(language)
audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
recognizer = speechsdk.translation.
    IntentRecognizer()
    SpeakerRecognizer()
    SpeechSynthesizer()
    TranslationRecognizer()

    translation_config=translation_config, audio_config=audio_config)
result = recognizer.recognize_once()
if result.reason == speechsdk.ResultReason.TranslatedSpeech:
    append_to_transcript_file(result.text, "en")
    for language in result.translations:
        append_to_transcript_file(result.translations[language], language)
```

Question #69

Topic 3

You are developing an app that will use the text-to-speech capability of the Azure AI Speech service. The app will be used in motor vehicles.

You need to optimize the quality of the synthesized voice output.

Which Speech Synthesis Markup Language (SSML) attribute should you configure?

- A. the style attribute of the mstts:express-as element
- B. the effect attribute of the voice element
- C. the pitch attribute of the prosody element
- D. the level attribute of the emphasis element

Correct Answer: B

Community vote distribution

B (100%)

You are designing a content management system.

You need to ensure that the reading experience is optimized for users who have reduced comprehension and learning differences, such as dyslexia. The solution must minimize development effort.

Which Azure service should you include in the solution?

- A. Azure AI Immersive Reader
- B. Azure AI Translator
- C. Azure AI Document Intelligence
- D. Azure AI Language

Correct Answer: A

Community vote distribution

A (100%)

HOTSPOT

You are building an app that will answer customer calls about the status of an order. The app will query a database for the order details and provide the customers with a spoken response.

You need to identify which Azure AI service APIs to use. The solution must minimize development effort.

Which object should you use for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Convert customer calls into text queries:

- SpeechRecognizer
- SpeechSynthesizer
- TranslationRecognizer
- VoiceProfileClient

Provide customers with the order details:

- SpeechRecognizer
- SpeechSynthesizer
- TranslationRecognizer
- VoiceProfileClient

Answer Area

Convert customer calls into text queries:

- SpeechRecognizer
- SpeechSynthesizer
- TranslationRecognizer
- VoiceProfileClient

Correct Answer:

Provide customers with the order details:

- SpeechRecognizer
- SpeechSynthesizer
- TranslationRecognizer
- VoiceProfileClient

You have an Azure AI service model named Model1 that identifies the intent of text input.

You develop a Python app named App1.

You need to configure App1 to use Model1.

Which package should you add to App1?

- A. azure-cognitiveservices-language-textanalytics
- B. azure-ai-language-conversations
- C. azure-mgmt-cognitiveservices
- D. azure-cognitiveservices-speech

Correct Answer: D

Community vote distribution

B (100%)

HOTSPOT

You are building an app that will automatically translate speech from English to French, German, and Spanish by using Azure AI service.

You need to define the output languages and configure the Azure AI Speech service.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
speech_key, service_region = os.environ['SPEECH__SERVICE__KEY'], os.environ['SPEECH__SERVICE__REGION']

languages = [
    ['en-GB'],
    {'en','fr','de','es'},
    ['fr','de','es'],
    {"French","Spanish","German" }
]

def translate_speech_to_text():
    translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_region)
    for lang in languages:
        translation_config.add_target_language(lang)
        for lang in languages:
            translation_config.add_target_language(lang)
    recognizer = speechsdk.translation. (translation_config=translation_config)
    ...

```

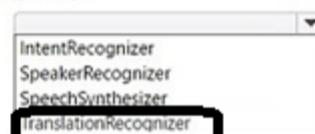
**Answer Area**

```
speech_key, service_region = os.environ['SPEECH__SERVICE__KEY'], os.environ['SPEECH__SERVICE__REGION']

languages = [
    ['en-GB'],
    {'en','fr','de','es'},
    ['fr','de','es'],
    {"French", "Spanish", "German" }
]

def translate_speech_to_text():
    translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_region)
    for lang in languages:
        translation_config.add_target_language(lang)
        for lang in languages:
            translation_config.add_target_language(lang)
    recognizer = speechsdk.translation. (translation_config=translation_config)
    ...

```

Correct Answer:

DRAG DROP

You plan to implement an Azure AI Search resource that will use custom skill based on sentiment analysis.

You need to create a custom model and configure Azure AI Search use the model.

Which five 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.

Actions

- Create an endpoint for the model.
- Rerun the indexer to enrich the index.
- Create an Azure Machine Learning workspace.
- Create and train the model in the Azure Machine Learning studio.
- Provision an Azure AI Services resource and obtain the endpoint.
- Connect the custom skill the endpoint.

Answer Area**Answer Area**

- Create an Azure Machine Learning workspace.
- Provision an Azure AI Services resource and obtain the endpoint.
- Connect the custom skill the endpoint.
- Create and train the model in the Azure Machine Learning studio.
- Rerun the indexer to enrich the index.

Correct Answer:

HOTSPOT

You have a collection of press releases stored as PDF files.

You need to extract text from the files and perform sentiment analysis.

Which service should you use for each task? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Extract text:

- Azure AI Search
- Azure AI Vision
- Azure AI Document Intelligence

Perform sentiment analysis:

- Azure Cognitive Search
- Azure AI Computer Vision
- Azure AI Document Intelligence
- Azure AI Language

Answer Area

Extract text:

- Azure AI Search
- Azure AI Vision
- Azure AI Document Intelligence**

Correct Answer:

Perform sentiment analysis:

- Azure Cognitive Search
- Azure AI Computer Vision
- Azure AI Document Intelligence
- Azure AI Language**

Question #1

HOTSPOT -

You are developing a text processing solution.

You develop the following method.

```
static void GetKeyPhrases(TextAnalyticsClient textAnalyticsClient, string text)
{
    var response = textAnalyticsClient.ExtractKeyPhrases(text);
    Console.WriteLine("Key phrases:");

    foreach (string keyphrase in response.Value)
    {
        Console.WriteLine($"\\t{keyphrase}");
    }
}
```

You call the method by using the following code.

```
GetKeyPhrases(textAnalyticsClient, "the cat sat on the mat");
```

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 call will output key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
The call will output key phrases from the input string to the console.	<input checked="" type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input checked="" type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

The Key Phrase Extraction API evaluates unstructured text, and for each JSON document, returns a list of key phrases.

Box 2: No -

'the' is not a key phrase.

This capability is useful if you need to quickly identify the main points in a collection of documents. For example, given input text "The food was delicious and there were wonderful staff", the service returns the main talking points: "food" and "wonderful staff".

Box 3: No -

Key phrase extraction does not have confidence levels.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-keyword-extraction>

You deploy a web app that is used as a management portal for indexing in Azure Cognitive Search. The app is configured to use the primary admin key.

During a security review, you discover unauthorized changes to the search index. You suspect that the primary access key is compromised.

You need to prevent unauthorized access to the index management endpoint. The solution must minimize downtime.

What should you do next?

- A. Regenerate the primary admin key, change the app to use the secondary admin key, and then regenerate the secondary admin key.
- B. Change the app to use a query key, and then regenerate the primary admin key and the secondary admin key.
- C. Regenerate the secondary admin key, change the app to use the secondary admin key, and then regenerate the primary key.
- D. Add a new query key, change the app to use the new query key, and then delete all the unused query keys.

Correct Answer: A

Regenerate admin keys.

Two admin keys are created for each service so that you can rotate a primary key, using the secondary key for business continuity.

1. In the Settings >Keys page, copy the secondary key.
2. For all applications, update the API key settings to use the secondary key.
3. Regenerate the primary key.
4. Update all applications to use the new primary key.

Note: Two admin api-keys, referred to as primary and secondary keys in the portal, are automatically generated when the service is created and can be individually regenerated on demand. Having two keys allows you to roll over one key while using the second key for continued access to the service.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-security-api-keys#regenerate-admin-keys>

Community vote distribution

C (86%)

10%

You have an existing Azure Cognitive Search service.

You have an Azure Blob storage account that contains millions of scanned documents stored as images and PDFs.

You need to make the scanned documents available to search as quickly as possible.

What should you do?

- A. Split the data into multiple blob containers. Create a Cognitive Search service for each container. Within each indexer definition, schedule the same runtime execution pattern.
- B. Split the data into multiple blob containers. Create an indexer for each container. Increase the search units. Within each indexer definition, schedule a sequential execution pattern.
- C. Create a Cognitive Search service for each type of document.
- D. Split the data into multiple virtual folders. Create an indexer for each folder. Increase the search units. Within each indexer definition, schedule the same runtime execution pattern.

Correct Answer: D

Incorrect Answers:

A: Need more search units to process the data in parallel.

B: Run them in parallel, not sequentially.

C: Need a blob indexer.

Note: A blob indexer is used for ingesting content from Azure Blob storage into a Cognitive Search index.

Index large datasets -

Indexing blobs can be a time-consuming process. In cases where you have millions of blobs to index, you can speed up indexing by partitioning your data and using multiple indexers to process the data in parallel. Here's how you can set this up:

- ☞ Partition your data into multiple blob containers or virtual folders
- ☞ Set up several data sources, one per container or folder.
- ☞ Create a corresponding indexer for each data source. All of the indexers should point to the same target search index.
- ☞ One search unit in your service can run one indexer at any given time. Creating multiple indexers as described above is only useful if they actually run in parallel.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-howto-indexing-azure-blob-storage>

Community vote distribution

D (100%)

You need to implement a table projection to generate a physical expression of an Azure Cognitive Search index. Which three properties should you specify in the skillset definition JSON configuration table node? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. tableName
- B. generatedKeyName
- C. dataSource
- D. dataSourceConnection
- E. source

Correct Answer: ABE

Defining a table projection.

Each table requires three properties:

- tableName: The name of the table in Azure Storage.
- generatedKeyName: The column name for the key that uniquely identifies this row.
- source: The node from the enrichment tree you are sourcing your enrichments from. This node is usually the output of a shaper, but could be the output of any of the skills.

Reference:

<https://docs.microsoft.com/en-us/azure/search/knowledge-store-projection-overview>

Community vote distribution

ABE (100%)

HOTSPOT -

You are creating an enrichment pipeline that will use Azure Cognitive Search. The knowledge store contains unstructured JSON data and scanned PDF documents that contain text.

Which projection type should you use for each data type? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

JSON data:

File projection
Object projection
Table projection

Scanned data:

File projection
Object projection
Table projection

Answer Area

JSON data:

File projection
Object projection
Table projection

Correct Answer:

Scanned data:

File projection
Object projection
Table projection

Box 1: Object projection -

Object projections are JSON representations of the enrichment tree that can be sourced from any node.

Box 2: File projection -

File projections are similar to object projections and only act on the normalized_images collection.

Reference:

<https://docs.microsoft.com/en-us/azure/search/knowledge-store-projection-overview>

HOTSPOT -

You are building an Azure Cognitive Search custom skill.

You have the following custom skill schema definition.

```
{  
    "@odata.type": "#Microsoft.Skills.Custom.WebApiSkill",  
    "description": "My custom skill description",  
    "uri": "https://contoso-webskill.azurewebsites.net/api/process",  
    "context": "/document/organizations/*",  
    "inputs": [  
        {  
            "name": "companyName",  
            "source": "/document/organizations/*"  
        }  
    ],  
    "outputs": [  
        {  
            "name": "companyDescription",  
        }  
    ]  
}
```

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
------------	-----	----

CompanyDescription is available for indexing.

The definition calls a web API as part of the enrichment process.

The enrichment step is called only for the first organization under
"/document/organizations".

Answer Area

Statements	Yes	No
------------	-----	----

Correct Answer: CompanyDescription is available for indexing.

The definition calls a web API as part of the enrichment process.

The enrichment step is called only for the first organization under
"/document/organizations".

Box 1: Yes -

Once you have defined a skillset, you must map the output fields of any skill that directly contributes values to a given field in your search index.

Box 2: Yes -

The definition is a custom skill that calls a web API as part of the enrichment process.

Box 3: No -

For each organization identified by entity recognition, this skill calls a web API to find the description of that organization.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-output-field-mapping>

You have the following data sources:

- Finance: On-premises Microsoft SQL Server database
- Sales: Azure Cosmos DB using the Core (SQL) API
- Logs: Azure Table storage

HR: Azure SQL database -

You need to ensure that you can search all the data by using the Azure Cognitive Search REST API.

What should you do?

- A. Configure multiple read replicas for the data in Sales.
- B. Mirror Finance to an Azure SQL database.
- C. Ingest the data in Logs into Azure Data Explorer.
- D. Ingest the data in Logs into Azure Sentinel.

Correct Answer: B

On-premises Microsoft SQL Server database cannot be used as an index data source.

Note: Indexer in Azure Cognitive Search: : Automate aspects of an indexing operation by configuring a data source and an indexer that you can schedule or run on demand. This feature is supported for a limited number of data source types on Azure.

Indexers crawl data stores on Azure.

- Azure Blob Storage
- Azure Data Lake Storage Gen2 (in preview)
- Azure Table Storage
- Azure Cosmos DB
- Azure SQL Database
- SQL Managed Instance
- SQL Server on Azure Virtual Machines

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-indexer-overview#supported-data-sources>

Community vote distribution

B (100%)

You are developing a solution to generate a word cloud based on the reviews of a company's products.

Which Text Analytics REST API endpoint should you use?

- A. keyPhrases
- B. sentiment
- C. languages
- D. entities/recognition/general

Correct Answer: A

Reference:

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

Community vote distribution

A (94%)

6%

DRAG DROP -

You have a web app that uses Azure Cognitive Search.

When reviewing billing for the app, you discover much higher than expected charges. You suspect that the query key is compromised.

You need to prevent unauthorized access to the search endpoint and ensure that users only have read only access to the documents collection.

The solution must minimize app downtime.

Which three 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

Add a new query key.

Regenerate the secondary admin key.

Change the app to use the secondary admin key.

Change the app to use the new key.

Regenerate the primary admin key.

Delete the compromised key.

Answer Area**Correct Answer:****Actions**

Regenerate the secondary admin key.

Change the app to use the secondary admin key.

Regenerate the primary admin key.

Answer Area

Add a new query key.

Change the app to use the new key.

Delete the compromised key.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-security-api-keys>

You are developing an application that will use Azure Cognitive Search for internal documents.

You need to implement document-level filtering for Azure Cognitive Search.

Which three actions should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Send Azure AD access tokens with the search request.
- B. Retrieve all the groups.
- C. Retrieve the group memberships of the user.
- D. Add allowed groups to each index entry.
- E. Create one index per group.
- F. Supply the groups as a filter for the search requests.

Correct Answer: CDF

Your documents must include a field specifying which groups have access. This information becomes the filter criteria against which documents are selected or rejected from the result set returned to the issuer.

D: A query request targets the documents collection of a single index on a search service.

CF: In order to trim documents based on group_ids access, you should issue a search query with a group_ids/any(g:search.in(g, 'group_id1, group_id2,...')) filter, where 'group_id1, group_id2, ...' are the groups to which the search request issuer belongs.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-security-trimming-for-azure-search>

Community vote distribution

CDF (71%)	14%	14%
-----------	-----	-----

You have an Azure Cognitive Search solution and an enrichment pipeline that performs Sentiment Analysis on social media posts.

You need to define a knowledge store that will include the social media posts and the Sentiment Analysis results.

Which two fields should you include in the definition? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. storageContainer
- B. storageConnectionString
- C. files
- D. tables
- E. objects

Correct Answer: DE

Knowledge store definition -

A knowledge store is defined inside a skillset definition and it has two components:

A connection string to Azure Storage

Projections that determine whether the knowledge store consists of tables, objects or files.

The projections element is an array. You can create multiple sets of table-object-file combinations within one knowledge store.

```
"knowledgeStore": {  
  "storageConnectionString": "<YOUR-AZURE-STORAGE-ACCOUNT-CONNECTION-STRING>",  
  "projections": [  
    {  
      "tables": [],  
      "objects": [],  
      "files": []  
    }  
  ]  
}
```

The type of projection you specify in this structure determines the type of storage used by knowledge store.

Objects - project JSON document into Blob storage. The physical representation of an object is a hierarchical JSON structure that represents an enriched document.

Tables - project enriched content into Table Storage. Define a table projection when you need tabular reporting structures for inputs to analytical tools or export as data frames to other data stores. You can specify multiple tables within the same projection group to get a subset or cross section of enriched documents. Within the same projection group, table relationships are preserved so that you can work with all of them.

Projected content is not aggregated or normalized. The following screenshot shows a table, sorted by key phrase, with the parent document indicated in the adjacent column. In contrast with data ingestion during indexing, there is no linguistic analysis or aggregation of content. Plural forms and differences in casing are considered unique instances.

Content.metadata_storage_name	Content.KeyPhrases
Cognitive Services and Content Intelligence.pptx	Computer Vision
10-K-FY16.html	computing device
10-K-FY16.html	computing devices
MSFT_FY17_10K.docx	computing devices
10-K-FY16.html	Computing segment
Cognitive Services and Bots (spanish).pdf	confianza

Incorrect:

Not C: files - project image files into Blob storage. A file is an image extracted from a document, transferred intact to Blob storage. Although it is named "files", it shows up in Blob Storage, not file storage.

Community vote distribution

BE (65%)

BD (18%)

Other

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to create an Azure resource named solution12345678 that will index a sample database named realestate-us-sample. The solution must ensure that users can search the index in English for people, organizations, and locations.

To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Step 1 - Start the Import data wizard and create a data source

1. Sign in to the Azure portal with your Azure account.

2. Find your search service and on the Overview page, click Import data on the command bar to create and populate a search index.

The screenshot shows the 'Import data' wizard interface. At the top, there are tabs: 'Connect to your data' (which is underlined), 'Enrich content (Optional)', 'Customize target index', and 'Create an indexer'. Below these tabs, a descriptive text states: 'Create and load a search index using data from an existing Azure data source in your current subscription. Azure Cognitive Search crawls the data structure you provide, extracts searchable content, optionally enriches it with cognitive skills, and loads it into an index.' A 'Learn more' link is provided. The main configuration area has two sections: 'Data Source' and 'Name'. Under 'Data Source', there is a dropdown menu with 'Samples' selected, indicated by a red circle with the number '1'. Under 'Name', there are two entries: 'realestate-us-sample' and 'hotels-sample', with 'hotels-sample' highlighted by a red circle with the number '2'.

3. In the wizard, click Connect to your data, and select the sample database named realestate-us-sample

Step 2 - Skip the "Enrich content" page

The wizard supports the creation of an AI enrichment pipeline for incorporating the Cognitive Services AI algorithms into indexing.

We'll skip this step for now, and move directly on to Customize target index.

Step 3 - Configure index -

The solution must ensure that users can search the index in English for people, organizations, and locations.

Configure Searchable for the fields people, organizations, and locations.

Import data

Connect to your data Enrich content (Optional) **Customize target index*** Create an indexer

i We provided a default index for you. You can delete the fields you don't need. Everything is editable, but once the index is built, deleting or changing existing fields will require re-indexing your documents.

Index name * ⓘ

hotels-sample-index

Key * ⓘ

HotellId

Suggester name

sg

Search mode ⓘ

+ Add field

+ Add subfield

>Delete

Field name	Type	Retrievable	Filterable	Sortable	Facetable	Searchable	Analyzer	Suggester	...
HotellId	Edm.String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	English - Microsoft	<input type="checkbox"/>	...
HotelName	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	English - Microsoft	<input type="checkbox"/>	...
Description	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	English - Microsoft	<input type="checkbox"/>	...

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-get-started-portal>

HOTSPOT

You create a knowledge store for Azure Cognitive Search by using the following JSON.

```
"knowledgeStore": {
    "storageConnectionString": "DefaultEndpointsProtocol=https;AccountName=<Acct Name>;AccountKey=<Acct Key>;",
    "projections": [
        {
            "tables": [
                {
                    "tableName": "unrelatedDocument",
                    "generatedKeyName": "Documentid",
                    "source": "/document/pbiShape"
                },
                {
                    "tableName": "unrelatedKeyPhrases",
                    "generatedKeyName": "KeyPhraseid",
                    "source": "/document/pbiShape/keyPhrases"
                }
            ],
            "objects": [
            ],
            "files": []
        },
        {
            "tables": [],
            "objects": [
                {
                    "storageContainer": "unrelatedocrtext",
                    "source": null,
                    "sourceContext": "/document/normalized_images/*/text",
                    "inputs": [
                        {
                            "name": "ocrText",
                            "source": "/document/normalized_images/*/text"
                        }
                    ]
                },
                {
                    "storageContainer": "unrelatedocrlayout",
                    "source": null,
                    "sourceContext": "/document/normalized_images/*/layoutText",
                    "inputs": [
                        {
                            "name": "ocrLayoutText",
                            "source": "/document/normalized_images/*/layoutText"
                        }
                    ]
                }
            ],
            "files": []
        }
    ]
}
```

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 will be [answer choice].

- no projection groups
- one projection group
- two projection groups
- four projection groups

Normalized images will [answer choice].

- not be projected
- be projected to Azure Blob storage
- be projected to Azure File storage
- be saved to an Azure Table storage

Answer Area

There will be [answer choice].

- no projection groups
- one projection group
- two projection groups**
- four projection groups

Correct Answer:

Normalized images will [answer choice].

- not be projected
- be projected to Azure Blob storage**
- be projected to Azure File storage
- be saved to an Azure Table storage

Question #14

Topic 4

You plan to create an index for an Azure Cognitive Search service by using the Azure portal. The Cognitive Search service will connect to an Azure SQL database.

The Azure SQL database contains a table named UserMessages. Each row in UserMessages has a field named MessageCopy that contains the text of social media messages sent by a user.

Users will perform full text searches against the MessageCopy field, and the values of the field will be shown to the users.

You need to configure the properties of the index for the MessageCopy field to support the solution.

Which attributes should you enable for the field?

- A. Sortable and Retrievable
- B. Filterable and Retrievable
- C. Searchable and Facetable
- D. Searchable and Retrievable

Correct Answer: D*Community vote distribution*

D (100%)

You have the following data sources:

- Finance: On-premises Microsoft SQL Server database
- Sales: Azure Cosmos DB using the Core (SQL) API
- Logs: Azure Table storage
- HR: Azure SQL database

You need to ensure that you can search all the data by using the Azure Cognitive Search REST API.

What should you do?

- A. Export the data in Finance to Azure Data Lake Storage.
- B. Configure multiple read replicas for the data in Sales.
- C. Ingest the data in Logs into Azure Data Explorer.
- D. Migrate the data in HR to Azure Blob storage.

Correct Answer: A

Community vote distribution

A (90%) 10%

HOTSPOT

You plan to provision Azure Cognitive Services resources by using the following method.

You need to create a Standard tier resource that will convert scanned receipts into text.

```
static void provision_resource(CognitiveServicesManagementClient client, string name, string kind, string tier, string location)
{
    CognitiveServicesAccount parameters =
        new CognitiveServicesAccount(null, null, kind, location, name,
            new CognitiveServicesAccountProperties(), new Sku(tier));
    result = client.Accounts.Create(resource_group_name, tier, parameters);
}
```

How should you call the method? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

provision_resource("res1",

ComputerVision
CustomVision.Prediction
CustomVision.Training
FormRecognizer

"eastus", "S1")
"useast", "S1")
"S0", "eastus")
"S0", "useast")

Answer Area

Correct Answer:

provision_resource("res1",

ComputerVision
CustomVision.Prediction
CustomVision.Training
FormRecognizer

"eastus", "S1")
"useast", "S1")
"S0", "eastus")
"S0", "useast")

HOTSPOT

You have an app named App1 that uses Azure AI Document Intelligence to analyze medical records and provide pharmaceutical dosage recommendations for patients.

You send a request to App1 and receive the following response.

```
{  
  "status": "succeeded",  
  "createdDateTime": "2023-09-14T21:01:02Z",  
  "lastUpdatedDateTime": "2023-09-14T21:01:03Z",  
  "analyzeResult": {  
    "apiVersion": "2023-07-31",  
    "modelId": "prebuilt-healthInsuranceCard.us",  
    "stringIndexType": "utf16CodeUnit",  
    "content": "Blood Pressure 118/72",  
    "pages": [  
      {  
        ...  
        "words": [  
          {  
            "content": "Blood",  
            "polygon": [ ... ],  
            "confidence": 0.766,  
            "span": { ... }  
          },  
          {  
            "content": "Pressure",  
            "polygon": [ ... ],  
            "confidence": 0.716,  
            "span": { ... }  
          },  
          {  
            "content": "118/72",  
            "polygon": [ ... ],  
            "confidence": 0.761,  
            "span": { ... }  
          }  
        ],  
        ...  
      }  
    ]  
  }  
}
```

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 chosen model is suitable for the intended use case.	<input type="radio"/>	<input type="radio"/>
The text content was recognized with greater than 70 percent confidence.	<input type="radio"/>	<input type="radio"/>
The form elements were recognized with greater than 70 percent confidence.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
The chosen model is suitable for the intended use case.	<input type="radio"/>	<input checked="" type="radio"/>
Correct Answer: The text content was recognized with greater than 70 percent confidence.	<input checked="" type="radio"/>	<input type="radio"/>
The form elements were recognized with greater than 70 percent confidence.	<input checked="" type="radio"/>	<input type="radio"/>

HOTSPOT

You have an Azure subscription that contains an Azure AI Document Intelligence resource named DI1.

You build an app named App1 that analyzes PDF files for handwritten content by using DI1.

You need to ensure that App1 will recognize the handwritten content.

How should you complete the code? To answer, select the appropriate options in the answer area.

Answer Area

```
Uri fileUri = new Uri("<fileUri>");

AnalyzeDocumentOperation operation = await client.AnalyzeDocumentFromUriAsync(WaitUntil.Completed,
    AnalyzeResult result = operation.Value;
    foreach (DocumentStyle style in result.Styles)
{
    bool isHandwritten = style.IsHandwritten.HasValue && style.IsHandwritten == true;
    if (isHandwritten && style.Confidence >  )
        {
            Console.WriteLine($"Handwritten content found:");
            foreach (DocumentSpan span in style.Spans)

```

"prebuilt-document"
 "prebuilt-contract"
 "prebuilt-read"

Answer Area

```
Uri fileUri = new Uri("<fileUri>");
AnalyzeDocumentOperation operation = await client.AnalyzeDocumentFromUriAsync(WaitUntil.Completed,
    AnalyzeResult result = operation.Value;
    foreach (DocumentStyle style in result.Styles)
```

Correct Answer:

```
{  
    bool isHandwritten = style.IsHandwritten.HasValue && style.IsHandwritten == true;  
    if (isHandwritten && style.Confidence >  )  
        {  
            Console.WriteLine($"Handwritten content found:");
            foreach (DocumentSpan span in style.Spans)

```

You have an app named App1 that uses a custom Azure AI Document Intelligence model to recognize contract documents.

You need to ensure that the model supports an additional contract format. The solution must minimize development effort.

What should you do?

- A. Lower the confidence score threshold of App1.
- B. Create a new training set and add the additional contract format to the new training set. Create and train a new custom model.
- C. Add the additional contract format to the existing training set. Retrain the model.
- D. Lower the accuracy threshold of App1.

Correct Answer: C

Community vote distribution

C (100%)

HOTSPOT

You have an Azure subscription.

You need to deploy an Azure AI Document Intelligence resource.

How should you complete the Azure Resource Manager (ARM) template? To answer, select the appropriate options in the answer area.

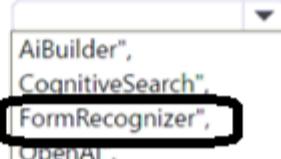
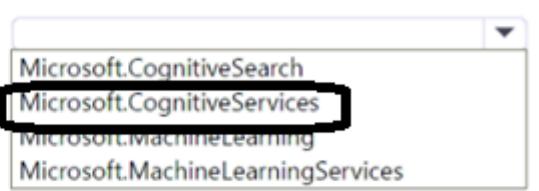
NOTE: Each correct selection is worth one point.

Answer Area

```
"$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {},
"variables": {},
"resources": [
{
  "type": "Microsoft.DocumentIntelligence/accounts",
  "apiVersion": "2023-05-01",
  "name": "DocumentIntelligenceDemo",
  "location": "westeurope",
  "sku": {
    "name": "F0"
  },
  "kind": "AiBuilder",
  "CognitiveSearch",
  "FormRecognizer",
  "OpenAI",
}
]
```

Answer Area

```
$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {},
"variables": {},
"resources": [
{
  "type": "Microsoft.CognitiveServices/accounts",
  "name": "DocumentIntelligenceDemo",
  "location": "westeurope",
  "sku": {
    "name": "F0"
  },
  "kind": "FormRecognizer",
  "apiVersion": "2023-05-01",
  "properties": {}
}
]
```

**Correct Answer:****Question #21****Topic 4**

You are building an app named App1 that will use Azure AI Document Intelligence to extract the following data from scanned documents:

- Shipping address
- Billing address
- Customer ID
- Amount due
- Due date
- Total tax
- Subtotal

You need to identify which model to use for App1. The solution must minimize development effort.

Which model should you use?

- A. custom extraction model
- B. contract
- C. invoice
- D. general document

Correct Answer: C

Community vote distribution

C (100%)

Question #1

You build a bot by using the Microsoft Bot Framework SDK and the Azure Bot Service.

You plan to deploy the bot to Azure.

You register the bot by using the Bot Channels Registration service.

Which two values are required to complete the deployment? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. botId
- B. tenantId
- C. appId
- D. objectId
- E. appSecret

Correct Answer: CE

Reference:

<https://github.com/MicrosoftDocs/bot-docs/blob/live/articles/bot-service-quickstart-registration.md>

Community vote distribution

CE (100%)

HOTSPOT -

You are building a chatbot by using the Microsoft Bot Framework Composer.

You have the dialog design shown in the following exhibit.

Prompt for text
Text input
Collection information - Ask for a word or sentence.
[Learn more](#)

Bot Asks **User Input** **Other**

Property
user.name

Output Format
ex. =toUpperCase(this.value), \${toUpperCase(this.value)}

Value
fx =coalesce(@user.Name,@personName)

Expected responses (intent: #TextInput_Response_GH5FTe)

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
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

user.name is an entity.

The dialog asks for a user name and a user age and assigns appropriate values to the user.name and user.age properties.

The chatbot attempts to take the first non-null entity value for userName or personName and assigns the value to user.name.

Correct Answer:

Answer Area**Statements**

Yes	No
<input type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>

user.name is an entity.

The dialog asks for a user name and a user age and assigns appropriate values to the user.name and user.age properties.

The chatbot attempts to take the first non-null entity value for userName or personName and assigns the value to user.name.

Box 1: No -

User.name is a property.

Box 2: Yes -

Box 3: Yes -

The coalesce() function evaluates a list of expressions and returns the first non-null (or non-empty for string) expression.

Reference:

<https://docs.microsoft.com/en-us/composer/concept-language-generation> <https://docs.microsoft.com/en-us/azure/data-explorer/kusto/query/coalesceffunction>

Question #3

Topic 5

You are building a multilingual chatbot.

You need to send a different answer for positive and negative messages.

Which two Language service APIs should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Linked entities from a well-known knowledge base
- B. Sentiment Analysis
- C. Key Phrases
- D. Detect Language
- E. Named Entity Recognition

Correct Answer: BD

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

D: The Language Detection feature of the Azure Text Analytics REST API evaluates text input for each document and returns language identifiers with a score that indicates the strength of the analysis.

This capability is useful for content stores that collect arbitrary text, where language is unknown.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-sentiment-analysis?tabs=version-3-1>

<https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-language-detection>

Community vote distribution

BD (100%)

DRAG DROP -

You plan to build a chatbot to support task tracking.

You create a Language Understanding service named lu1.

You need to build a Language Understanding model to integrate into the chatbot. The solution must minimize development time to build the model.

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

Select and Place:

Actions	Answer Area
----------------	--------------------

Train the application.

Publish the application.

Add a new application.

Add example utterances.

Add the prebuilt domain ToDo.

Actions**Answer Area**

Train the application.

Add a new application.

Publish the application.

Add example utterances.

Add a new application.

Train the application.

Add example utterances.

Publish the application.

Add the prebuilt domain ToDo.

Correct Answer:

Step 1: Add a new application -

Create a new app -

1. Sign in to the LUIS portal with the URL of <https://www.luis.ai>.

2. Select Create new app.

3. Etc.

Step 2: Add example utterances.

In order to classify an utterance, the intent needs examples of user utterances that should be classified with this intent.

Step 3: Train the application -

Step 4: Publish the application -

In order to receive a LUIS prediction in a chat bot or other client application, you need to publish the app to the prediction endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/tutorial-intents-only>

You are building a bot on a local computer by using the Microsoft Bot Framework. The bot will use an existing Language Understanding model.

You need to translate the Language Understanding model locally by using the Bot Framework CLI.

What should you do first?

- A. From the Language Understanding portal, clone the model.
- B. Export the model as an .lu file.
- C. Create a new Speech service.
- D. Create a new Language Understanding service.

Correct Answer: B

You might want to manage the translation and localization for the language understanding content for your bot independently.

Translate command in the @microsoft/bf-lu library takes advantage of the Microsoft text translation API to automatically machine translate .lu files to one or more than 60+ languages supported by the Microsoft text translation cognitive service.

What is translated?

An .lu file and optionally translate

Comments in the lu file -

LU reference link texts -

List of .lu files under a specific path.

Reference:

<https://github.com/microsoft/botframework-cli/blob/main/packages/luis/docs/translate-command.md>

Community vote distribution

B (100%)

DRAG DROP -

You are using a Language Understanding service to handle natural language input from the users of a web-based customer agent.

The users report that the agent frequently responds with the following generic response: "Sorry, I don't understand that."

You need to improve the ability of the agent to respond to requests.

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

Select and Place:

Actions**Answer Area**

Add prebuilt domain models as required.

Validate the utterances logged for review and modify the model.

Migrate authoring to an Azure resource authoring key.

Enable active learning.

Enable log collection by using Log Analytics.

Train and republish the Language Understanding model.

Correct Answer:**Actions****Answer Area**

Add prebuilt domain models as required.

Add prebuilt domain models as required.

Validate the utterances logged for review and modify the model.

Enable active learning.

Migrate authoring to an Azure resource authoring key.

Train and republish the Language Understanding model.

Enable active learning.

Enable log collection by using Log Analytics.

Train and republish the Language Understanding model.

Step 1: Add prebuilt domain models as required.

Prebuilt models provide domains, intents, utterances, and entities. You can start your app with a prebuilt model or add a relevant model to your app later.

Note: Language Understanding (LUIS) provides prebuilt domains, which are pre-trained models of intents and entities that work together for domains or common categories of client applications.

The prebuilt domains are trained and ready to add to your LUIS app. The intents and entities of a prebuilt domain are fully customizable once you've added them to your app.

Step 2: Enable active learning -

To enable active learning, you must log user queries. This is accomplished by calling the endpoint query with the log=true querystring parameter and value.

Step 3: Train and republish the Language Understanding model

The process of reviewing endpoint utterances for correct predictions is called Active learning. Active learning captures endpoint queries and selects user's endpoint utterances that it is unsure of. You review these utterances to select the intent and mark entities for these real-world utterances. Accept these changes into your example utterances then train and publish. LUIS then identifies utterances more accurately.

Incorrect Answers:

Enable log collection by using Log Analytics

Application authors can choose to enable logging on the utterances that are sent to a published application. This is not done through Log Analytics.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-how-to-review-endpoint-utterances#log-user-queries-to-enable-active-learning> <https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-prebuilt-model>

Question #7

Topic 5

You build a conversational bot named bot1.

You need to configure the bot to use a QnA Maker application.

From the Azure Portal, where can you find the information required by bot1 to connect to the QnA Maker application?

- A. Access control (IAM)
- B. Properties
- C. Keys and Endpoint
- D. Identity

Correct Answer: C

Obtain values to connect your bot to the knowledge base

1. In the QnA Maker site, select your knowledge base.
2. With your knowledge base open, select the SETTINGS tab. Record the value shown for service name. This value is useful for finding your knowledge base of interest when using the QnA Maker portal interface. It's not used to connect your bot app to this knowledge base.
3. Scroll down to find Deployment details and record the following values from the Postman sample HTTP request:
4. POST /knowledgebases/<knowledge-base-id>/generateAnswer
5. Host: <your-host-url>
6. Authorization: EndpointKey <your-endpoint-key>

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-qna>

Community vote distribution

C (100%)

HOTSPOT -

You are building a chatbot for a Microsoft Teams channel by using the Microsoft Bot Framework SDK. The chatbot will use the following code.

```
protected override async Task OnMembersAddedAsync(IList<ChannelAccount>
membersAdded, ITurnContext<IConversationUpdateActivity> turnContext,
CancellationToken cancellationToken)
{
    foreach (var member in membersAdded)
        if (member.Id != turnContext.Activity.Recipient.Id)
            await turnContext.SendActivityAsync($"Hi there - {member.Name}.
{WelcomeMessage}", cancellationToken: cancellationToken);
}
```

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
OnMembersAddedAsync will be triggered when a user joins the conversation.	<input type="radio"/>	<input type="radio"/>
When a new user joins the conversation, the existing users in the conversation will see the chatbot greeting.	<input type="radio"/>	<input type="radio"/>
OnMembersAddedAsync will be initialized when a user sends a message.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
OnMembersAddedAsync will be triggered when a user joins the conversation.	<input checked="" type="radio"/>	<input type="radio"/>
When a new user joins the conversation, the existing users in the conversation will see the chatbot greeting.	<input checked="" type="radio"/>	<input type="radio"/>
OnMembersAddedAsync will be initialized when a user sends a message.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

The ActivityHandler.OnMembersAddedAsync method overrides this in a derived class to provide logic for when members other than the bot join the conversation, such as your bot's welcome logic.

Box 2: Yes -

membersAdded is a list of all the members added to the conversation, as described by the conversation update activity.

Box 3: No -

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.bot.builder.activityhandler.onmembersaddedasync?view=botbuilder-dotnet-stable>

HOTSPOT -

You are reviewing the design of a chatbot. The chatbot includes a language generation file that contains the following fragment.

```
# Greet(user)
- ${Greeting()}, ${user.name}
```

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
<code> \${user.name} </code> retrieves the user name by using a prompt.	<input type="radio"/>	<input type="radio"/>
<code>Greet () </code> is the name of the language generation template.	<input type="radio"/>	<input type="radio"/>
<code> \${Greeting () } </code> is a reference to a template in the language generation file.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
<code> \${user.name} </code> retrieves the user name by using a prompt.	<input type="radio"/>	<input checked="" type="radio"/>
<code>Greet () </code> is the name of the language generation template.	<input type="radio"/>	<input checked="" type="radio"/>
<code> \${Greeting () } </code> is a reference to a template in the language generation file.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Example: Greet a user whose name is stored in `user.name`

```
- ${ welcomeUser(user.name) }
```

Example: Greet a user whose name you don't know:

```
- ${ welcomeUser() }
```

Box 2: No -

`Greet(User)` is a Send a response action.

Box 3: Yes -

Reference:

<https://docs.microsoft.com/en-us/composer/how-to-ask-for-user-input>

HOTSPOT -

You are building a chatbot by using the Microsoft Bot Framework SDK.

You use an object named `UserProfile` to store user profile information and an object named `ConversationData` to store information related to a conversation.

You create the following state accessors to store both objects in state.
`var userStateAccessors = _userState.CreateProperty<UserProfile>(nameof(UserProfile)); var conversationStateAccessors = _conversationState.CreateProperty<ConversationData>(nameof(ConversationData));`

The state storage mechanism is set to Memory Storage.

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 code will create and maintain the `UserProfile` object in the underlying storage layer.

The code will create and maintain the `ConversationData` object in the underlying storage layer.

The `UserProfile` and `ConversationData` objects will persist when the Bot Framework runtime terminates.

 Answer Area

Statements	Yes	No
------------	-----	----

The code will create and maintain the `UserProfile` object in the underlying storage layer.

Correct Answer:

The code will create and maintain the `ConversationData` object in the underlying storage layer.

The `UserProfile` and `ConversationData` objects will persist when the Bot Framework runtime terminates.

Box 1: Yes -

You create property accessors using the `CreateProperty` method that provides a handle to the `BotState` object. Each state property accessor allows you to get or set the value of the associated state property.

Box 2: Yes -

Box 3: No -

Before you exit the turn handler, you use the state management objects' `SaveChangesAsync()` method to write all state changes back to storage.

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-v4-state>

HOTSPOT -

You are building a chatbot that will provide information to users as shown in the following exhibit.

Passengers

Sarah Hum
Jeremy Goldberg
Evan Litvak

2 Stops**Tue, May 30, 2017 10:25 PM**

San Francisco

Amsterdam



San Francisco

Amsterdam

SFO

AMS

SFO

AMS

Non-Stop**Fri, Jun 2, 2017 11:55 PM**

San Francisco

Amsterdam



San Francisco

Amsterdam

SFO

AMS

SFO

AMS

Total

\$4,032.54

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The chatbot is showing [answer choice].

▼

an Adaptive Card
a Hero Card
a Thumbnail Card

The card includes [answer choice].

▼

an action set
an image
an image group
media

Answer Area

The chatbot is showing **[answer choice]**.

Correct Answer:

The card includes **[answer choice]**.

an Adaptive Card
a Hero Card
a Thumbnail Card
an action set
an image
an image group
media

Box 1: A Thumbnail card -

A Thumbnail card typically contains a single thumbnail image, some short text, and one or more buttons.

Incorrect Answers:

- an Adaptive card is highly customizable card that can contain any combination of text, speech, images, buttons, and input fields.
- a Hero card typically contains a single large image, one or more buttons, and a small amount of text.

Box 2: an image -

Reference:

<https://docs.microsoft.com/en-us/microsoftteams/platform/task-modules-and-cards/cards/cards-reference>

HOTSPOT -

You are building a bot and that will use Language Understanding.

You have a LUDown file that contains the following content.

```
## Confirm
- confirm
- ok
- yes

## ExtractName
- call me steve !
- i am anna
- (i'm|i am) {@PersonName.Any}[]
- my name is {@PersonName.Any}[]

## Logout
- forget me
- log out

## SelectItem
- choose last
- choose the {@DirectionalReference=bottom left}
- choose {@DirectionalReference=top right}
- i like {@DirectionalReference=left} one

## SelectNone
- none

@ ml DirectionalReference
@ prebuilt personName
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

SelectItem is [answer choice].

a domain
an entity
an intent
an utterance

Choose {@DirectionalReference=top right} is [answer choice].

a domain
an entity
an intent
an utterance

Answer Area

SelectItem is [answer choice].

a domain
an entity
an intent
an utterance

Correct Answer:

Choose {@DirectionalReference=top right} is [answer choice].

a domain
an entity
an intent
an utterance

Reference:

<https://github.com/solliancenet/tech-immersion-data-ai/blob/master/ai-exp1/README.md>

HOTSPOT -

You are designing a conversation flow to be used in a chatbot.

You need to test the conversation flow by using the Microsoft Bot Framework Emulator.

How should you complete the .chat file? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
user=User1  
bot=watchbot  
user: I want a new watch.
```

```
bot: [ ] [Delay=3000]  
Attachment  
ConversationUpdate  
Typing
```

```
bot: I can help you with that! Let me see what I can find.
```

```
bot: Here's what I found.
```

```
bot:
```

```
[AttachmentLayout=  
adaptivecard  
carousel  
thumbnail
```

```
[Attachment=https://contoso.blob.core.windows.net/watch01.jpg]
```

```
[Attachment=https://contoso.blob.core.windows.net/watch02.jpg]
```

```
user: I like the first one.
```

```
bot: Sure, pulling up more information.
```

```
bot: [Attachment=cards\watchProfileCard.json
```

```
user: That's nice! Thank you.
```

```
bot: Sure, you are most welcome!
```

```
adaptivecard  
carousel  
list
```

Answer Area

```
user=User1  
bot=watchbot  
user: I want a new watch.
```

```
bot: [ ] [Delay=3000]  
Attachment  
ConversationUpdate  
Typing
```

```
bot: I can help you with that! Let me see what I can find.
```

```
bot: Here's what I found.
```

```
bot:
```

Correct Answer:

```
[AttachmentLayout=
```

```
adaptivecard  
carousel  
thumbnail
```

```
[Attachment=https://contoso.blob.core.windows.net/watch01.jpg]
```

```
[Attachment=https://contoso.blob.core.windows.net/watch02.jpg]
```

```
user: I like the first one.
```

```
bot: Sure, pulling up more information.
```

```
bot: [Attachment=cards\watchProfileCard.json
```

```
user: That's nice! Thank you.
```

```
bot: Sure, you are most welcome!
```

```
adaptivecard  
carousel  
list
```

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-add-media-attachments?view=azure-bot-service-4.0&tabs=csharp>

You are building a chatbot by using the Microsoft Bot Framework Composer as shown in the exhibit. (Click the Exhibit tab.)

GetUserDetails > BeginDialog > Text

Show code

Prompt for text

Text Input
Collection information - Ask for a word or sentence.

[Learn more](#)

Bot Asks	User input	Other
Property ②	string	
(SCOPE).name		
Output format ②	string	
Value ②	string	
Expected responses (intent : #TextInput_Response_FuvyF4)		

The chatbot contains a dialog named GetUserDetails. GetUserDetails contains a TextInput control that prompts users for their name.

The user input will be stored in a property named name.

You need to ensure that you can dispose of the property when the last active dialog ends.

Which scope should you assign to name?

- A. dialog
- B. user
- C. turn
- D. conversation

Correct Answer: A

The dialog scope associates properties with the active dialog. Properties in the dialog scope are retained until the dialog ends.

Incorrect Answers:

A: The conversation scope associates properties with the current conversation. Properties in the conversation scope have a lifetime of the conversation itself.

These properties are in scope while the bot is processing an activity associated with the conversation (for example, multiple users together in a Microsoft Teams channel).

B: The user scope associates properties with the current user. Properties in the user scope do not expire. These properties are in scope while the bot is processing an activity associated with the user.

C: The turn scope associates properties with the current turn. Properties in the turn scope expire at the end of the turn.

Reference:

<https://docs.microsoft.com/en-us/composer/concept-memory?tabs=v2x>

Community vote distribution

A (100%)

DRAG DROP -

You have a chatbot that uses a QnA Maker application.

You enable active learning for the knowledge base used by the QnA Maker application.

You need to integrate user input into the model.

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

Select and Place:

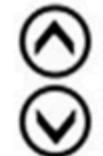
Actions**Answer Area**

Add a task to the Azure resource.

Approve and reject suggestions.

Publish the knowledge base.

Modify the automation task logic app to run an Azure Resource Manager template that creates the Azure Cognitive Services resource.



For the knowledge base, select Show active learning suggestions.

Save and train the knowledge base.

Select the properties of the Azure Cognitive Services resource.

Actions**Answer Area**

Add a task to the Azure resource.

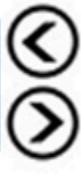
For the knowledge base, select Show active learning suggestions.

Approve and reject suggestions.

Save and train the knowledge base.

Correct Answer:

Modify the automation task logic app to run an Azure Resource Manager template that creates the Azure Cognitive Services resource.



Publish the knowledge base.

Select the properties of the Azure Cognitive Services resource.

Step 1: For the knowledge base, select Show active learning suggestions.

In order to see the suggested questions, on the Edit knowledge base page, select View Options, then select Show active learning suggestions.

Step 2: Approve and reject suggestions.

Each QnA pair suggests the new question alternatives with a check mark, , to accept the question or an x to reject the suggestions. Select the check mark to add the question.

^

add the question.

Step 3: Save and train the knowledge base.

Select Save and Train to save the changes to the knowledge base.

Step 4: Publish the knowledge base.

Select Publish to allow the changes to be available from the GenerateAnswer API.

When 5 or more similar queries are clustered, every 30 minutes, QnA Maker suggests the alternate questions for you to accept or reject.

Reference:

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

Topic 5

Question #16

You need to enable speech capabilities for a chatbot.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Enable WebSockets for the chatbot app.
- B. Create a Speech service.
- C. Register a Direct Line Speech channel.
- D. Register a Cortana channel.
- E. Enable CORS for the chatbot app.
- F. Create a Language Understanding service.

Correct Answer: ABC

You can use the Speech service to voice-enable a chat bot.

The Direct Line Speech channel uses the text-to-speech service, which has neural and standard voices.

You'll need to make a small configuration change so that your bot can communicate with the Direct Line Speech channel using web sockets.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/tutorial-voice-enable-your-bot-speech-sdk>

Community vote distribution

ABC (86%)

14%

You use the Microsoft Bot Framework Composer to build a chatbot that enables users to purchase items.

You need to ensure that the users can cancel in-progress transactions. The solution must minimize development effort.

What should you add to the bot?

- A. a language generator
- B. a custom event
- C. a dialog trigger
- D. a conversation activity

Correct Answer: D

Handling interruptions is an important aspect of a robust bot. Users will not always follow your defined conversation flow, step by step. They may try to ask a question in the middle of the process, or simply want to cancel it instead of completing it.

Example:

If the user types "cancel", it calls CancelAllDialogsAsync on its inner dialog context, which clears its dialog stack and causes it to exit with a canceled status and no result value. To the MainDialog (shown later on), it will appear that the booking dialog ended and returned null, similar to when the user chooses not to confirm their booking.

```
private async Task<DialogTurnResult> InterruptAsync(DialogContext innerDc, CancellationToken cancellationToken)
```

```
{  
    if (innerDc.Context.Activity.Type == ActivityTypes.Message)  
    {  
        var text = innerDc.Context.Activity.Text.ToLowerInvariant();  
        switch (text)  
        {  
            case "cancel":  
            case "quit":  
                var cancelMessage = MessageFactory.Text(CancelMsgText, CancelMsgText, InputHints.IgnoringInput); await  
                innerDc.Context.SendActivityAsync(cancelMessage, cancellationToken); return await innerDc.CancelAllDialogsAsync(cancellationToken);  
            }  
        }  
    }  
    return null;  
}
```

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-handle-user-interrupt>

Community vote distribution

C (94%)

6%

SIMULATION -

You need to create and publish a bot that will use Language Understanding and QnA Maker. The bot must be named bot12345678. You must publish the bot by using the User1-12345678@abc.com account.

NOTE: Complete this task first. It may take several minutes to complete the required deployment steps. While this is taking place, you can complete tasks 2-6 in this lab during the deployment.

To complete this task, use the Microsoft Bot Framework Composer.

Correct Answer: See explanation below.

Step 1: Sign in to the QnAMaker.ai portal with your Azure credentials. Use the User1-12345678@abc.com account

Step 2: Publish the knowledge base. In the QnA Maker portal, select Publish. Then to confirm, select Publish on the page.

The QnA Maker service is now successfully published. You can use the endpoint in your application or bot code.

Success! Your service has been deployed. What's next?

You can always find the deployment details in your service's settings.

[Create Bot](#)[View all your bots on the Azure Portal.](#)

Use the below HTTP request to call your Knowledgebase. [Learn more.](#)

[Postman](#)[Curl](#)

```
POST /knowledgebases/ <knowledge-base-ID> /generateAnswer
Host: https://so-15indexes.azurewebsites.net/qnamaker
Authorization: EndpointKey <Authorization-key>
Content-Type: application/json
{"question":<Your question>"}
```

Need to fine-tune and refine? Go back and keep editing your service.

[Edit Service](#)

Step 3: In the QnA Maker portal, on the Publish page, select Create bot.

This button appears only after you've published the knowledge base.

After publishing the knowledge base, you can create a bot from the Publish page.

Success! Your service has been deployed. What's next?

You can always find the deployment details in your service's settings.

[Create Bot](#)[View all your bots on the Azure Portal.](#)

Use the below HTTP request to call your Knowledgebase. [Learn more.](#)

[Postman](#)[Curl](#)

```
POST /knowledgebases/ <knowledge-base-ID> /generateAnswer
Host: https://so-15indexes.azurewebsites.net/qnamaker
Authorization: EndpointKey <Authorization-key>
Content-Type: application/json
{"question":<Your question>"}
```

Need to fine-tune and refine? Go back and keep editing your service.

[Edit Service](#)

Step 4: A new browser tab opens for the Azure portal, with the Azure Bot Service's creation page. Configure the Azure bot service.

Bot name: bot12345678 -

The bot will be created.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/quickstarts/create-publish-knowledge-base>

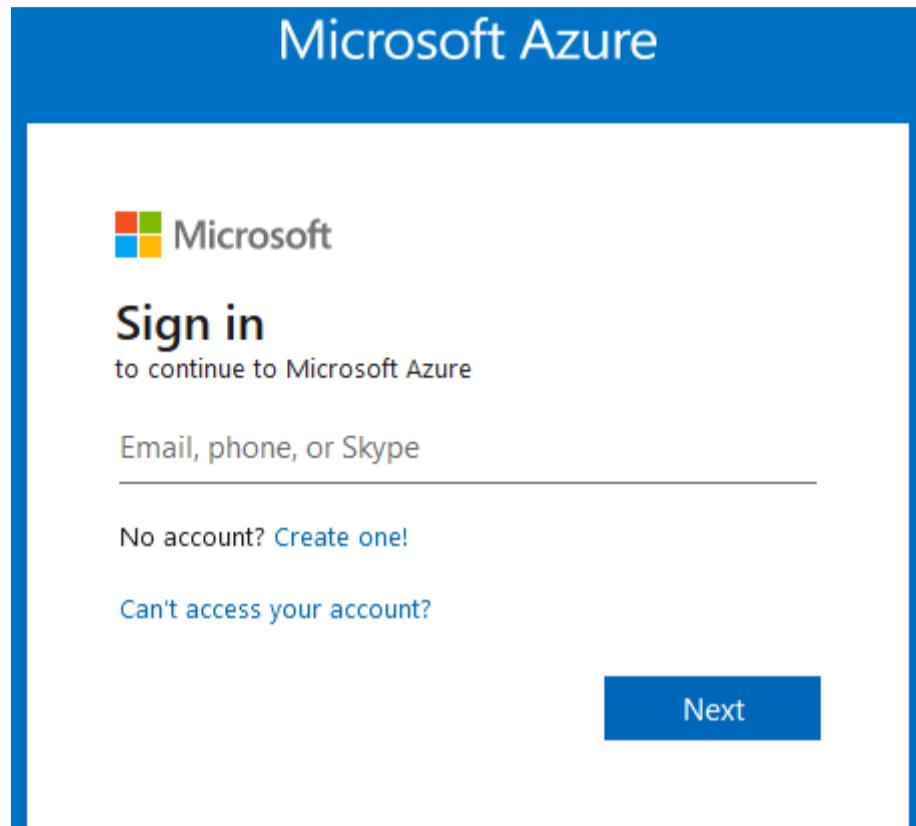
SIMULATION -

You need to create a QnA Maker service named QNA12345678 in the East US Azure region. QNA12345678 must contain a knowledge base that uses the questions and answers available at <https://support.microsoft.com/en-us/help/12435/windows-10-upgrade-faq>.

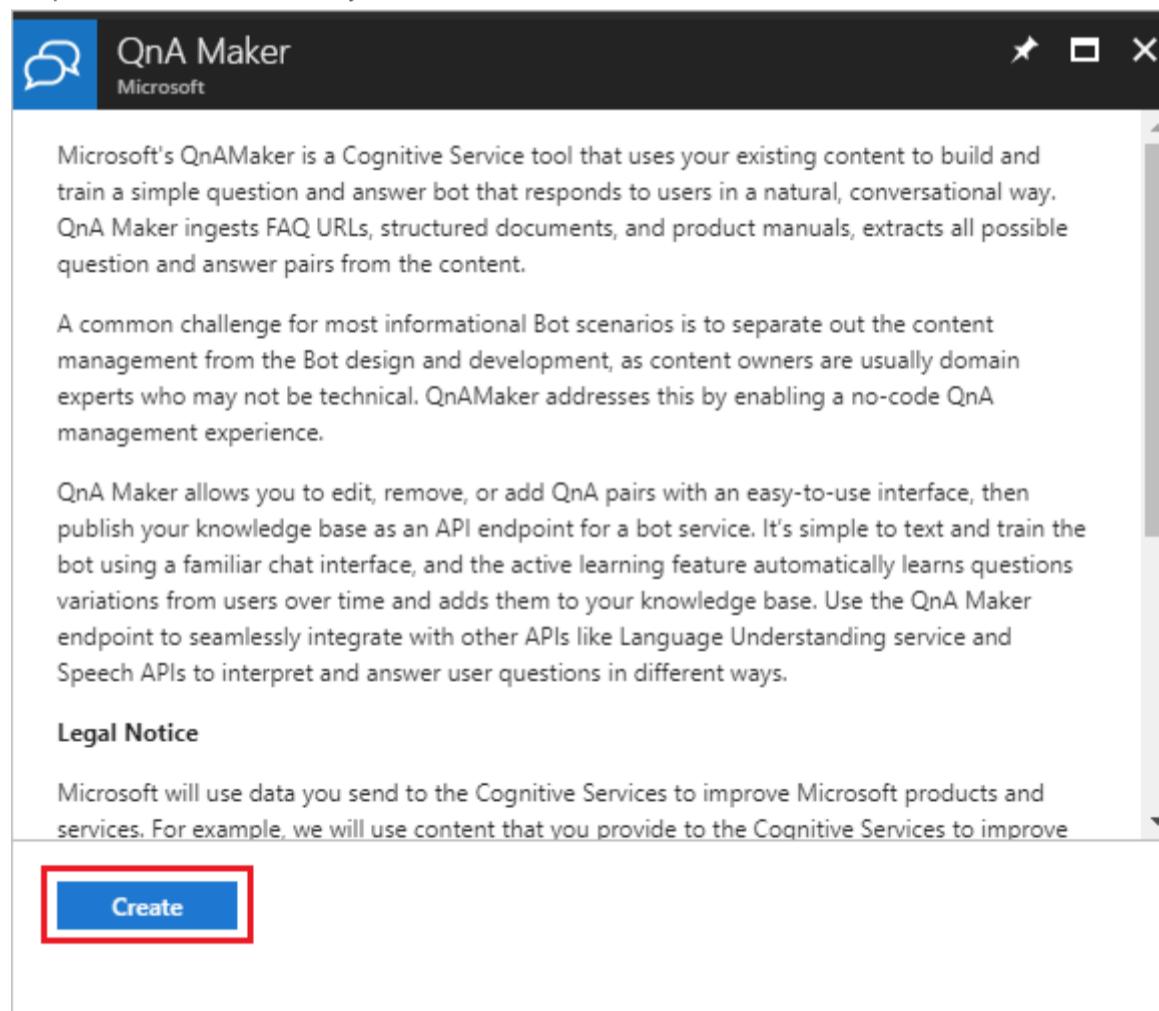
To complete this task, sign in to the Azure portal and the QnA Maker portal.

Correct Answer: See explanation below.

Step 1: Sign in to the Azure portal create and a QnA Maker resource.



Step 2: Select Create after you read the terms and conditions:



Step 3: In QnA Maker, select the appropriate tiers and regions.

Name: QNA12345678 -

In the Name field, enter a unique name to identify this QnA Maker service. This name also identifies the QnA Maker endpoint that your knowledge bases will be associated with.

Resource Group Location: East US Azure

Create

QnA Maker

* Name: myqnamakerservice

* Subscription: team

* Pricing tier (View full pricing details): F0 (3 managed documents per month, 3 tr...)

* Resource group: (New) myqnamakerservice

* Resource group location: (US) Central US

* Search pricing tier (View full pricing details): B (15 Indexes)

* Search location: West US

* App name: myqnamakerservice.azurewebsites.net

The App service plan currently defaults to standard(S1) tier. It can be modified by visiting the app service plan resource page once the resource has been created.

* Website location: West US

App insights: Enable

Step 4: After all the fields are validated, select Create. The process can take a few minutes to complete.

After deployment is completed, you'll see the following resources created in your subscription:

NAME	TYPE	LOCATION
Default1	App Service plan	East US
Failure Anomalies - myqnamakerservice-ai	microsoft.insights/alertrules	East US
myqnamakerservice	Search service	West US
myqnamakerservice	Cognitive Services	West US
myqnamakerservice	App Service	East US
qnamakerpp-ai	Application Insights	East US

Remember your Azure Active Directory ID, Subscription, QnA resource name you selected when you created the resource.

Step 5: When you are done creating the resource in the Azure portal, return to the QnA Maker portal, refresh the browser page.

Step 6: In the QnA Maker portal, select Create a knowledge base.

Step 7: Skip Step 1 as you already have your QnA Maker resource.

Step 8: In Step 2, select your Active directory, subscription, service (resource), and the language for all knowledge bases created in the service.

Azure QnA service: QNA12345678 -

STEP 2**Connect your QnA service to your KB.**

After you create an Azure QnA service, refresh this page and then select your Azure service using the options below

Refresh*** Microsoft Azure Directory ID**

Microsoft

*** Azure subscription name**

documentationteam

*** Azure QnA service**

qna-maker-10

*** Language**

English

Step 9: In Step 3, name your knowledge base

Step 10: In Step 4, configure the following setting:

+ Add URL: <https://support.microsoft.com/en-us/help/12435/windows-10-upgrade-faq>

Step 11: In Step 5, Select Create your KB.

The extraction process takes a few moments to read the document and identify questions and answers.

After QnA Maker successfully creates the knowledge base, the Knowledge base page opens.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/set-up-qnamaker-service-azure> <https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/quickstarts/create-publish-knowledge-base>

SIMULATION -

You need to add a question pair to the published knowledge base used by a QnA Maker service named QNA12345678. The question must be:

'What will be the next version of Windows?'

The answer must be: 'Windows 11'.

To complete this task, sign in to the QnA Maker portal.

Correct Answer: Answer: Windows 11

Step 1: Sign in to the QnA portal, then select the knowledge base to add the QnA pair to.

Step 2: On the EDIT page of the knowledge base, select Add QnA pair to add a new QnA pair.

Knowledge base

The screenshot shows the 'Knowledge base' section of the QnA Maker portal. At the top, there is a search bar labeled 'Search the knowledge base' and a status message '81 QnA pairs'. Below the search bar is a toolbar with a red box around the 'Add QnA pair' button. The toolbar also includes 'View options' and navigation buttons for pages 1 through 9, with 'Next >' and a refresh icon. The main area displays a table with two columns: 'Question' and 'Answer'. The first row shows a question 'How do I get the Surface Pro repaired?' with an answer 'Repairing the Surface Pro requires...'. There are also buttons for 'Add alternative phrasing' and 'Add follow-up prompt'. The table has a header row with 'Question' and 'Answer' and a summary row with 'Source: Editorial'.

Step 3: In the new QnA pair row, add the required question and answer fields. The other fields are optional. All fields can be changed at any time.

Question: What will be the next version of Windows?

Step 4: Select Save and train to see predictions including the new QnA pair.

Reference:

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

SIMULATION -

Use the following login credentials as needed:

To enter your username, place your cursor in the Sign in box and click on the username below.

To enter your password, place your cursor in the Enter password box and click on the password below.

Azure Username: admin@abc.com -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You have a bot that was developed by using the Microsoft Bot Framework SDK. The bot is available at an endpoint of <https://bot.contoso.com/api/messages>.

You need to create an Azure Bot named bot12345678 that connects to the bot.

To complete this task, sign in to the Azure portal.

Correct Answer: See explanation below.

Create the resource -

Create the Azure Bot resource, which will allow you to register your bot with the Azure Bot Service.

1. Go to the Azure portal.
2. In the right pane, select Create a resource.
3. In the search box enter bot, then press Enter.
4. Select the Azure Bot card.



Azure Bot

Microsoft

Azure Service

Build enterprise-grade conversational
AI experiences with Bot Framework
Composer or SDK.

Create ▾



5. Select Create.
6. Enter values in the required fields. Choose which type of app to create and whether to use existing or create new identity information.

Pricing

Select a pricing tier for your Azure Bot resource. You can change your selection later in the Azure portal's resource management. Learn more about available options, or request a pricing quote, by visiting the [Azure Bot Services pricing](#)

Pricing tier *

Standard
[Change plan](#)

Microsoft App ID

A Microsoft App ID is required to create an Azure Bot resource. If your bot app doesn't need to access resources outside of its home tenant and if your bot app will be hosted on an Azure resource that supports Managed Identities, then choose option User-Assigned Managed Identity so that Azure takes care of managing the App credentials for you. Otherwise, depending on whether your bot will be accessing resources only in its home tenant or not, choose either Single tenant or Multi tenant option respectively.

Type of App

User-Assigned Managed Identity

i Note: For User-Assigned Managed Identity and Single Tenant app, Azure Portal's "Open in Composer" link is not yet supported for bots with these app types. BotFramework SDK (C# or Javascript) version 4.15.0 or higher is needed for these app types.

A User-assigned managed identity can be automatically created below or you can manually create your own, then return to input your new App ID, tenant ID and MSI resource ID in the open fields.

[Manually create a User Managed Identity](#)

Creation type

Create new Microsoft App ID
 Use existing app registration

7. Select Review + create.

8. If the validation passes, select Create.

9. Once the deployment completes, select Go to resource. You should see the bot and related resources listed in the resource group you selected.

10. Enter the endpoint of the Bot Framework SDK: <https://bot.contoso.com/api/messages>

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/abs-quickstart?view=azure-bot-service-4.0&tabs=userassigned>

You are designing a conversational interface for an app that will be used to make vacation requests. The interface must gather the following data:

- The start date of a vacation
- The end date of a vacation
- The amount of required paid time off

The solution must minimize dialog complexity.

Which type of dialog should you use?

- A. adaptive
- B. skill
- C. waterfall
- D. component

Correct Answer: D

Community vote distribution

C (95%) 5%

DRAG DROP

You build a bot by using the Microsoft Bot Framework SDK.

You need to test the bot interactively on a local machine.

Which three 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.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Actions

- Open the Bot Framework Composer.
- Connect to the bot endpoint.
- Register the bot with the Azure Bot Service.
- Build and run the bot.
- Open the Bot Framework Emulator.

Answer Area

- 1
- 2
- 3



Answer Area

- 1 Build and run the bot.
- 2 Open the Bot Framework Emulator.
- 3 Connect to the bot endpoint.

Correct Answer:

You create a bot by using the Microsoft Bot Framework SDK.

You need to configure the bot to respond to events by using custom text responses.

What should you use?

- A. a dialog
- B. an activity handler
- C. an adaptive card
- D. a skill

Correct Answer: B

Community vote distribution

B (100%)

HOTSPOT

You build a bot named app1 by using the Microsoft Bot Framework.

You prepare app1 for deployment.

You need to deploy app1 to Azure.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
<input type="checkbox"/> bot	<input type="checkbox"/> config	
<input type="checkbox"/> functionapp	<input type="checkbox"/> config-local-git	
<input type="checkbox"/> vm	<input type="checkbox"/> config-zip	
<input type="checkbox"/> webapp		

Correct Answer:

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
<input type="checkbox"/> bot	<input type="checkbox"/> config	
<input type="checkbox"/> functionapp	<input type="checkbox"/> config-local-git	
<input checked="" type="checkbox"/> vm	<input checked="" type="checkbox"/> config-zip	
<input checked="" type="checkbox"/> webapp		

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you change the chitchat source to qna_chitchat_friendly.tsv, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (83%)

A (17%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you modify the question and answer pairs for the custom intents, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (90%)

10%

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you change the chitchat source to qna_chitchat_professional.tsv, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Community vote distribution

A (100%)

You create five bots by using Microsoft Bot Framework Composer.

You need to make a single bot available to users that combines the bots. The solution must support dynamic routing to the bots based on user input.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create a composer extension.
- B. Change the Recognizer/Dispatch type.
- C. Create an Orchestrator model.
- D. Enable WebSockets.
- E. Create a custom recognizer JSON file.
- F. Install the Orchestrator package.

Correct Answer: BCF

Community vote distribution

BCF (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you add alternative phrasing to the question and answer pair, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Community vote distribution

A (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you enable chit-chat, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you create an entity for price, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (100%)

You have a Conversational Language Understanding model.

You export the model as a JSON file. The following is a sample of the file.

```
{  
  "text": "average amount of rain by month in Chicago last year",  
  "intent": "Weather.CheckWeatherValue",  
  "entities": [  
    {  
      "entity": "Weather.WeatherRange",  
      "startPos": 0,  
      "endPos": 6,  
      "children": []  
    },  
    {  
      "entity": "Weather.WeatherCondition",  
      "startPos": 18,  
      "endPos": 21,  
      "children": []  
    },  
    {  
      "entity": "Weather.Historic",  
      "startPos": 23,  
      "endPos": 30,  
      "children": []  
    }  
  ]  
}
```

What represents the Weather.Historic entity in the sample utterance?

- A. last year
- B. by month
- C. amount of
- D. average

Correct Answer: B

Community vote distribution

B (100%)

You are building a chatbot by using Microsoft Bot Framework Composer.

You need to configure the chatbot to present a list of available options. The solution must ensure that an image is provided for each option.

Which two features should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. an entity
- B. an Azure function
- C. an utterance
- D. an adaptive card
- E. a dialog

Correct Answer: DE

Community vote distribution

DE (100%)

You are building a chatbot.

You need to configure the bot to guide users through a product setup process.

Which type of dialog should you use?

- A. component
- B. action
- C. waterfall
- D. adaptive

Correct Answer: C

Community vote distribution

C (88%)

13%

You have a chatbot that was built by using Microsoft Bot Framework and deployed to Azure.

You need to configure the bot to support voice interactions. The solution must support multiple client apps.

Which type of channel should you use?

- A. Cortana
- B. Microsoft Teams
- C. Direct Line Speech

Correct Answer: C

Community vote distribution

C (100%)

You are building a bot by using Microsoft Bot Framework.

You need to configure the bot to respond to spoken requests. The solution must minimize development effort.

What should you do?

- A. Deploy the bot to Azure and register the bot with a Direct Line Speech channel.
- B. Integrate the bot with Cortana by using the Bot Framework SDK.
- C. Create an Azure function that will call the Speech service and connect the bot to the function.
- D. Deploy the bot to Azure and register the bot with a Microsoft Teams channel.

Correct Answer: B

Community vote distribution

A (83%)

B (17%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you remove all the chit-chat question and answer pairs, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (100%)

HOTSPOT

You are building a chatbot.

You need to use the Content Moderator service to identify messages that contain sexually explicit language.

Which section in the response from the service will contain the category score, and which category will be assigned to the message? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Section:

Classification
pii
Terms

Category:

1
2
3

Answer Area

Correct Answer:

Section:

Classification
pii
Terms

Category:

1

You are building a chatbot for a travel agent. The bot will ask users for a destination and must repeat the question until a valid input is received, or the user closes the conversation.

Which type of dialog should you use?

- A. prompt
- B. input
- C. adaptive
- D. QnA Maker

Correct Answer: A

Community vote distribution

A (100%)

You are building a chatbot.

You need to configure the chatbot to query a knowledge base.

Which dialog class should you use?

- A. QnAMakerDialog
- B. AdaptiveDialog
- C. SkillDialog
- D. ComponentDialog

Correct Answer: A

Community vote distribution

A (100%)

HOTSPOT

You have a chatbot.

You need to ensure that the bot conversation resets if a user fails to respond for 10 minutes.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
...
if now_seconds != last_access and (now_seconds - last_access >= self.expire_after_seconds ):
    await turn_context.
    
    
    
    "Welcome back! Let's start over from the beginning."
)
await self.conversation_state.



```

Answer Area

```
...
if now_seconds != last_access and (now_seconds - last_access >= self.expire_after_seconds ):
    await turn_context.
    
    
    
    "Welcome back! Let's start over from the beginning."
)
await self.conversation_state.



```

Correct Answer:

```
"Welcome back! Let's start over from the beginning."
)
await self.conversation_state.



```

You develop a Conversational Language Understanding model by using Language Studio.

During testing, users receive incorrect responses to requests that do NOT relate to the capabilities of the model.

You need to ensure that the model identifies spurious requests.

What should you do?

- A. Enable active learning.
- B. Add entities.
- C. Add examples to the None intent.
- D. Add examples to the custom intents.

Correct Answer: A

Community vote distribution

C (100%)

You have a Speech resource and a bot that was built by using the Microsoft Bot Framework Composer.

You need to add support for speech-based channels to the bot.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Configure the language and voice settings for the Speech resource.
- B. Add the endpoint and key of the Speech resource to the bot.
- C. Add language understanding to dialogs.
- D. Add Orchestrator to the bot.
- E. Add Speech to the bot responses.
- F. Remove the setSpeak configuration.

Correct Answer: AEF

Community vote distribution

ABE (93%)

7%

DRAG DROP

You are building a bot.

You need to test the bot in the Bot Framework Emulator. The solution must ensure that you can debug the bot interactively.

Which three 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.

Actions	Answer Area
Run the bot app on a local host.	
Use the input prompt object to send a trace activity.	>
Deploy the bot to Azure.	<
In the code for the bot, create a new trace activity.	
In the code for the bot, send a trace activity.	

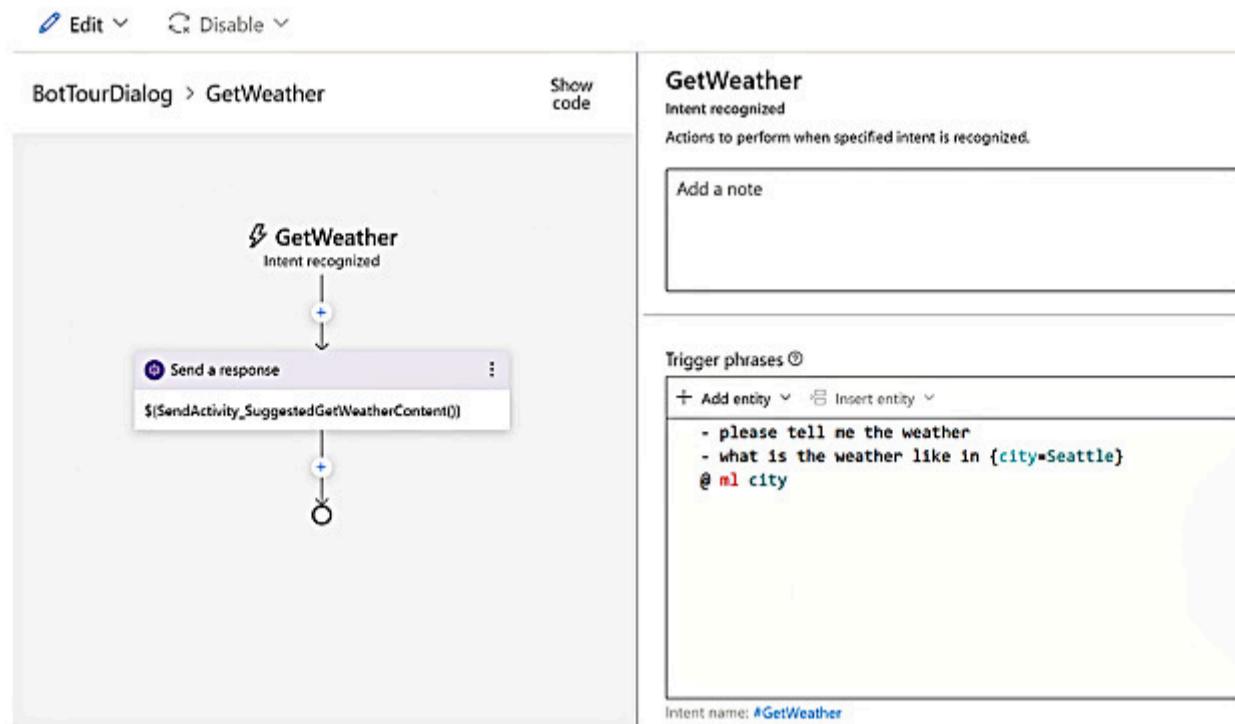
 

Correct Answer:

Answer Area
In the code for the bot, create a new trace activity.
In the code for the bot, send a trace activity.
Run the bot app on a local host.

HOTSPOT

You have a bot that was built by using the Microsoft Bot Framework composer 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

If a user asks "what is the weather like in New York", the bot will [answer choice].

The GetWeather dialog uses a [answer choice] trigger.

change to a different dialog
identify New York as a city entity
identify New York as a state entity
respond with the weather in Seattle

Custom events
Dialog events
Language Understanding Intent recognized
QnA Intent recognized

Answer Area

If a user asks "what is the weather like in New York", the bot will [answer choice].

The GetWeather dialog uses a [answer choice] trigger.

change to a different dialog
identify New York as a city entity
identify New York as a state entity
respond with the weather in Seattle

Custom events
Dialog events
Language Understanding Intent recognized
QnA Intent recognized

Correct Answer:

You are building a flight booking bot by using the Microsoft Bot Framework SDK.

The bot will ask users for the departure date. The bot must repeat the question until a valid date is given, or the users cancel the transaction.

Which type of dialog should you use?

- A. prompt
- B. adaptive
- C. waterfall
- D. action

Correct Answer: A

Community vote distribution

A (91%)	9%
---------	----

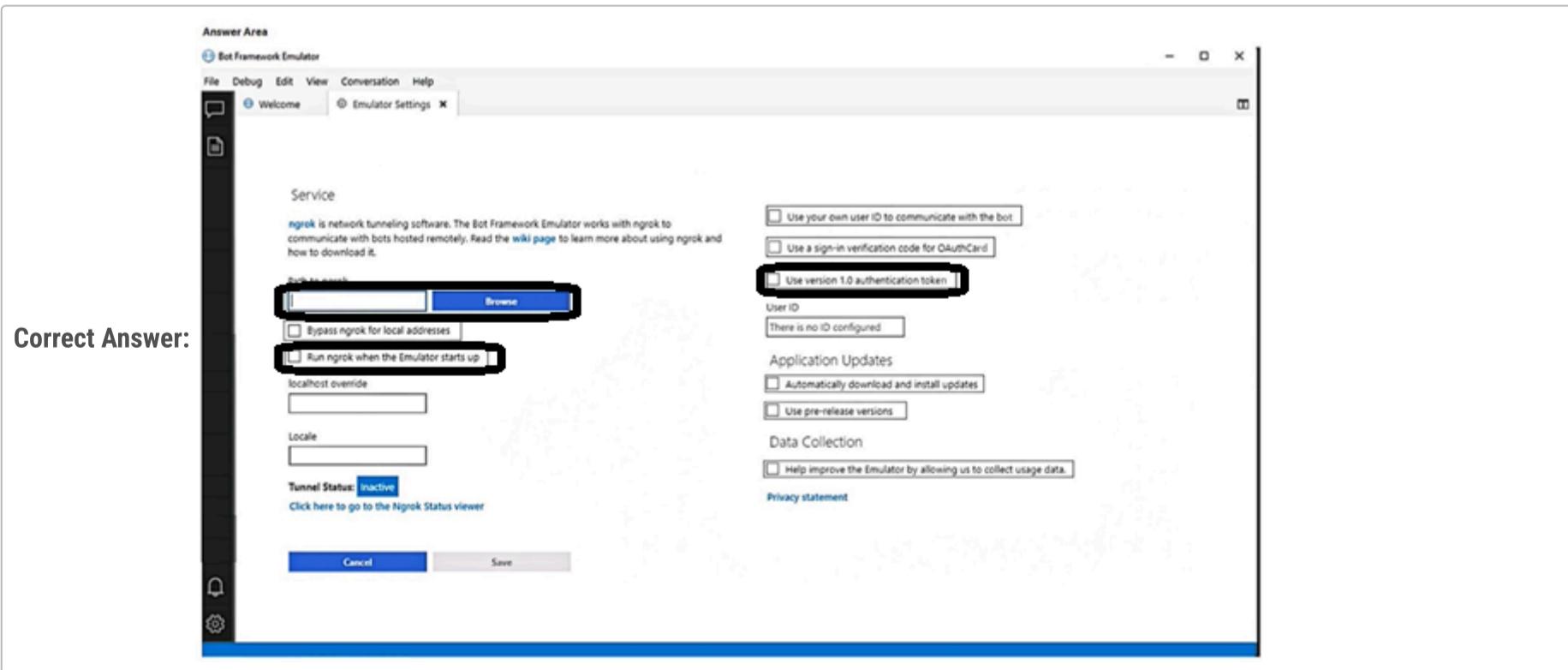
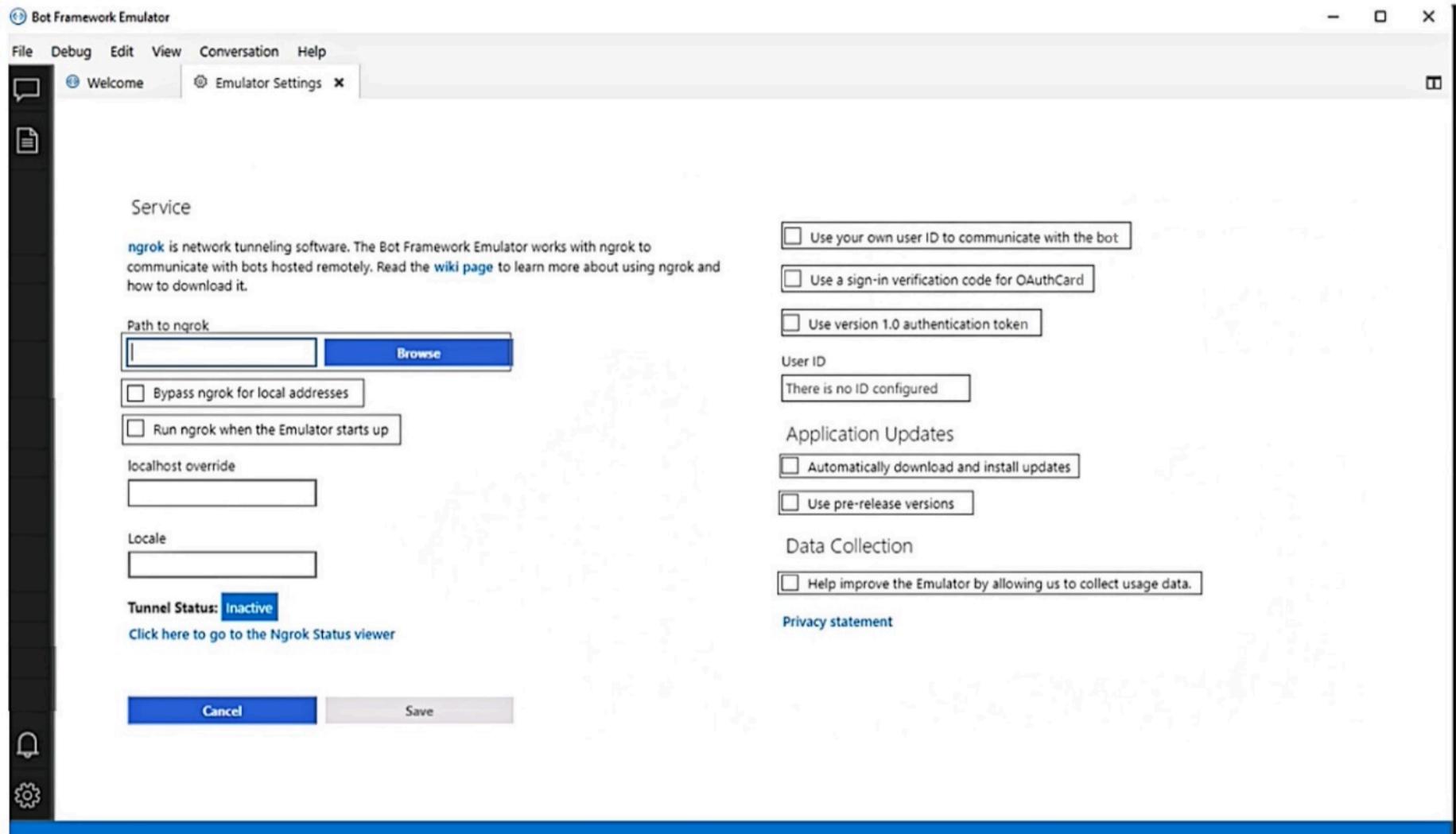
HOTSPOT

You have a chatbot.

You need to test the bot by using the Bot Framework Emulator. The solution must ensure that you are prompted for credentials when you sign in to the bot.

Which three settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

HOTSPOT -

You are building a chatbot by using the Microsoft Bot Framework SDK.

You use an object named UserProfile to store user profile information and an object named ConversationData to store information related to a conversation.

You create the following state accessors to store both objects in state.

```
self.user_profile_accessor = self.user_state.create_property("UserProfile")
self.conversation_data_accessor = self.conversation_state.create_property("ConversationData")
```

The state storage mechanism is set to Memory Storage.

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 code will create and maintain the UserProfile object in the underlying storage layer.	<input type="radio"/>	<input type="radio"/>
The code will create and maintain the ConversationData object in the underlying storage layer.	<input type="radio"/>	<input type="radio"/>
The UserProfile and ConversationData objects will persist when the Bot Framework runtime terminates.	<input type="radio"/>	<input type="radio"/>

Answer Area

Statements	Yes	No
The code will create and maintain the UserProfile object in the underlying storage layer.	<input checked="" type="checkbox"/>	<input type="radio"/>
The code will create and maintain the ConversationData object in the underlying storage layer.	<input checked="" type="checkbox"/>	<input type="radio"/>
The UserProfile and ConversationData objects will persist when the Bot Framework runtime terminates.	<input type="radio"/>	<input checked="" type="checkbox"/>

Correct Answer:

You build a bot.

You create an Azure Bot resource.

You need to deploy the bot to Azure.

What else should you create?

- A. only an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, an Azure App Service instance, and an App Service plan
- B. only an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, an Azure Kubernetes Service (AKS) instance, and a container image
- C. only an Azure App Service instance, and an App Service plan
- D. only an Azure Machine Learning workspace and an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra

Correct Answer: A

Community vote distribution

A (55%) C (45%)

You are building a chatbot by using the Microsoft Bot Framework SDK. The bot will be used to accept food orders from customers and allow the customers to customize each food item.

You need to configure the bot to ask the user for additional input based on the type of item ordered. The solution must minimize development effort.

Which two types of dialogs should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. adaptive
- B. action
- C. waterfall
- D. prompt
- E. input

Correct Answer: CD

Community vote distribution

CD (100%)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you create an entity for cost, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Topic 6 - Question Set 6

Question #1

Topic 6

DRAG DROP

You have a monitoring solution that uses the Azure AI Anomaly Detector service.

You provision a server named Server1 that has intermittent internet access.

You need to deploy the Azure AI Anomaly Detector to Server1.

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.

Actions

- Query the prediction endpoint on Server1.
- From Server1, run the docker push command.
- Install the Docker Engine on Server1.
- Query the prediction endpoint of the Azure AI Anomaly Detector in Azure.
- From Server1, run the docker run command.
- From Server1, run the docker pull command.

Answer Area

- 1
- 2
- 3
- 4



Answer Area

- 1 Install the Docker Engine on Server1.
- 2 From Server1, run the docker pull command.
- 3 From Server1, run the docker run command.
- 4 Query the prediction endpoint on Server1.

Topic 7 - Question Set 7

Question #1

Topic 7

You have an Azure subscription. The subscription contains an Azure OpenAI resource that hosts a GPT-4 model named Model1 and an app named App1. App1 uses Model1.

You need to ensure that App1 will NOT return answers that include hate speech.

What should you configure for Model1?

- A. the Frequency penalty parameter
- B. abuse monitoring
- C. a content filter
- D. the Temperature parameter

Correct Answer: C

Community vote distribution

C (100%)

You have an Azure subscription. The subscription contains an Azure OpenAI resource that hosts a GPT-3.5 Turbo model named Model1.

You configure Model1 to use the following system message: "You are an AI assistant that helps people solve mathematical puzzles. Explain your answers as if the request is by a 4-year-old."

Which type of prompt engineering technique is this an example of?

- A. few-shot learning
- B. affordance
- C. chain of thought
- D. priming

Correct Answer: A

Community vote distribution

D (80%)

C (20%)

HOTSPOT

You build a chatbot by using Azure OpenAI Studio.

You need to ensure that the responses are more deterministic and less creative.

Which two parameters should you configure? To answer, select the appropriate parameters in the answer area.

NOTE: Each correct answer is worth one point.

Answer Area

Chat session

Clear chat View code Show raw JSON

 **Start chatting**

Test your assistant by sending queries below. Then adjust your assistant setup to improve the assistant's responses.

Type user query here. (Shift + Enter for new line)

▶ ⌂

Configuration ×

Parameters

Max response ⓘ	800
Temperature ⓘ	0.7
Top P ⓘ	0.9
Stop sequence ⓘ	Stop sequences
Frequency penalty ⓘ	0
Presence penalty ⓘ	0

[Learn more ↗](#)

Current token count ⓘ

Input tokens progress indicator

1/4000

Answer Area

Correct Answer:

The screenshot shows the Azure OpenAI GPT 3.5 model configuration interface. The 'Parameters' tab is active. Key settings visible are:

- Max response: 800
- Temperature: 0.7 (highlighted)
- Top P: 0.9
- Stop sequence: Stop sequences
- Frequency penalty: 0
- Presence penalty: 0

Question #4

Topic 7

You are building a chatbot for a travel agent. The chatbot will use the Azure OpenAI GPT 3.5 model and will be used to make travel reservations.

You need to maximize the accuracy of the responses from the chatbot.

What should you do?

- A. Configure the model to include data from the travel agent's database.
- B. Set the Top P parameter for the model to 0.
- C. Set the Temperature parameter for the model to 0.
- D. Modify the system message used by the model to specify that the answers must be accurate.

Correct Answer: A

Community vote distribution

A (56%)

D (38%)

6%

You build a chatbot that uses the Azure OpenAI GPT 3.5 model.

You need to improve the quality of the responses from the chatbot. The solution must minimize development effort.

What are two ways to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct answer is worth one point.

- A. Fine-tune the model.
- B. Provide grounding content.
- C. Add sample request/response pairs.
- D. Retrain the language model by using your own data.
- E. Train a custom large language model (LLM).

Correct Answer: AD

Community vote distribution

BC (100%)

HOTSPOT

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You build a chatbot that will use AI1 to provide generative answers to specific questions.

You need to ensure that the responses are more creative and less deterministic.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
new ChatCompletionsOptions()
{
    Messages =
    {
        new ChatMessage(
            },
            ,
            = (float)1.0,
            ChatRole.User
            PresencePenalty
            Temperature
            TokenSelectionBiases
        MaxTokens = 800,
    });
}
```

Answer Area

```
new ChatCompletionsOptions()
{
    Messages =
    {
        new ChatMessage(
            },
            , @""),

    Correct Answer: ChatRole.Assistant
                    ChatRole.Function
                    ChatRole.System
                    ChatRole.User
                    = (float)1.0,
                    ChatRole.User
                    PresencePenalty
                    temperature
                    TokenSelectionBiases
                    MaxTokens = 800,
    });
}
```

Question #7

Topic 7

DRAG DROP

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to build an app named App1 that will write press releases by using AI1.

You need to deploy an Azure OpenAI model for App1. The solution must minimize development effort.

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

Actions

- Create a deployment that uses the text-embedding-ada-002 model.
- Apply the Marketing Writing Assistant system message template.
- Apply the Default system message template.
- Create a deployment that uses the GPT-35 Turbo model.
- Deploy the solution to a new web app.

Answer Area

1	
2	
3	



Correct Answer:

- Answer Area
- 1 Create a deployment that uses the GPT-35 Turbo model.
 - 2 Apply the Marketing Writing Assistant system message template.
 - 3 Deploy the solution to a new web app.

HOTSPOT

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You build a chatbot that will use AI1 to provide generative answers to specific questions.

You need to ensure that the responses are more creative and less deterministic.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
response = openai.ChatCompletion.create(  
    engine="dgw-aoai-gpt35",  
    messages = [{"role": "assistant", "content":""}],  
    temperature=1,  
    Frequency_penalty  
    Presence_penalty  
    temperature  
    token_selection_biases  
    max_tokens=800,  
    stop=None)
```

Answer Area

```
response = openai.ChatCompletion.create(  
    engine="dgw-aoai-gpt35",  
    messages = [{"role": "assistant", "content":""}],  
    temperature=1,  
    Frequency_penalty  
    Presence_penalty  
    temperature  
    token_selection_biases  
    max_tokens=800,  
    stop=None)
```

Correct Answer:

HOTSPOT

You have an Azure subscription that contains an Azure OpenAI resource.

You configure a model that has the following settings:

- Temperature: 1
- Top probabilities: 0.5
- Max response tokens: 100

You ask the model a question and receive the following response.

```
{  
  "choices": [  
    {  
      "finish_reason": "stop",  
      "index": 0,  
      "message": {  
        "content": "The founders of Microsoft are Bill Gates and Paul Allen. They co-founded the company in 1975.",  
        "role": "assistant"  
      }  
    }  
  ],  
  "created": 1679014554,  
  "id": "chatcmpl-6usfn2yyjkbmESe3G4jaQR6bDSc01",  
  "model": "gpt-3.5-turbo-0301",  
  "object": "chat.completion",  
  "usage": {  
    "completion_tokens": 86,  
    "prompt_tokens": 37,  
    "total_tokens": 123  
  }  
}
```

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 subscription will be charged 86 tokens for the execution of the session.

The text completion was truncated because the Max response tokens value was exceeded.

The prompt_tokens value will be included in the calculation of the Max response tokens value.

Answer Area**Statements**

Yes	No
-----	----

Correct Answer: The subscription will be charged 86 tokens for the execution of the session.

The text completion was truncated because the Max response tokens value was exceeded.

The prompt_tokens value will be included in the calculation of the Max response tokens value.

HOTSPOT

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to develop a console app that will answer user questions.

You need to call AI1 and output the results to the console.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
openai.api_key = key
openai.api_base = endpoint
response =
    openai.ChatCompletion.create
    openai.Embedding.create
    openai.Image.create
engine=deployment_name,
prompt="What is Microsoft Azure?"
)
print
    (response.choices[0].text)
    (response.id)
    (response.text)
```

Answer Area

```
openai.api_key = key
openai.api_base = endpoint
response =
    openai.ChatCompletion.create
    openai.Embedding.create
    openai.Image.create
```

Correct Answer:

```
engine=deployment_name,
prompt="What is Microsoft Azure?"
)
print
    (response.choices[0].text)
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HOTSPOT

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How should you complete the code? To answer, select the appropriate options in the answer area.

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Answer Area

```
OpenAIClient client =  
    new OpenAIClient(new Uri(endpoint), new AzureKeyCredential(key));  
  
Response<Completions> response =  
    client.  
        ▾ (deploymentName, "What is Microsoft Azure?");  
        ▾ GetCompletions  
        ▾ GetEmbeddings  
        ▾ GetImageGenerations  
  
Console.WriteLine  
    ▾ (response.Value.Choices[0].Text);  
    ▾ (response.Value.Id);  
    ▾ (response.Value.PromptFilterResults);
```

Answer Area

Correct Answer:

```
OpenAIClient client =  
    new OpenAIClient(new Uri(endpoint), new AzureKeyCredential(key));  
  
Response<Completions> response =  
    client.  
        ▾ (deploymentName, "What is Microsoft Azure?");  
        ▾ GetCompletions  
        ▾ GetEmbeddings  
        ▾ GetImageGenerations  
  
Console.WriteLine  
    ▾ (response.Value.Choices[0].Text);  
    ▾ (response.Value.Id);  
    ▾ (response.Value.PromptFilterResults);
```

HOTSPOT

You have an Azure subscription.

You need to create a new resource that will generate fictional stories in response to user prompts. The solution must ensure that the resource uses a customer-managed key to protect data.

How should you complete the script? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
az cognitiveservices account create -n myresource -g myResourceGroup --kind  AI  
           LanguageAuthoring  
           OpenAI  
  
          --sku S -l WestEurope  
  
--api-properties  
--assign-identity  
--encryption  
  
"keySource": "Microsoft.KeyVault",  
"keyVaultProperties": {  
    "keyName": "KeyName",  
    "keyVersion": "secretVersion",  
    "keyVaultUri": "https://issue23056kv.vault.azure.net/"  
}  
}'
```

Answer Area

```
az cognitiveservices account create -n myresource -g myResourceGroup --kind  AI  
           LanguageAuthoring  
           OpenAI  
          --sku S -l WestEurope
```

Correct Answer:

```
--api-properties  
--assign-identity  
--encryption  
  
"keySource": "Microsoft.KeyVault",  
"keyVaultProperties": {  
    "keyName": "KeyName",  
    "keyVersion": "secretVersion",  
    "keyVaultUri": "https://issue23056kv.vault.azure.net/"  
}  
}'
```

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You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

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Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
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- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

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Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

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Remove the need for manual translations.

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Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

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Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image": {  
        "uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

DRAG DROP -

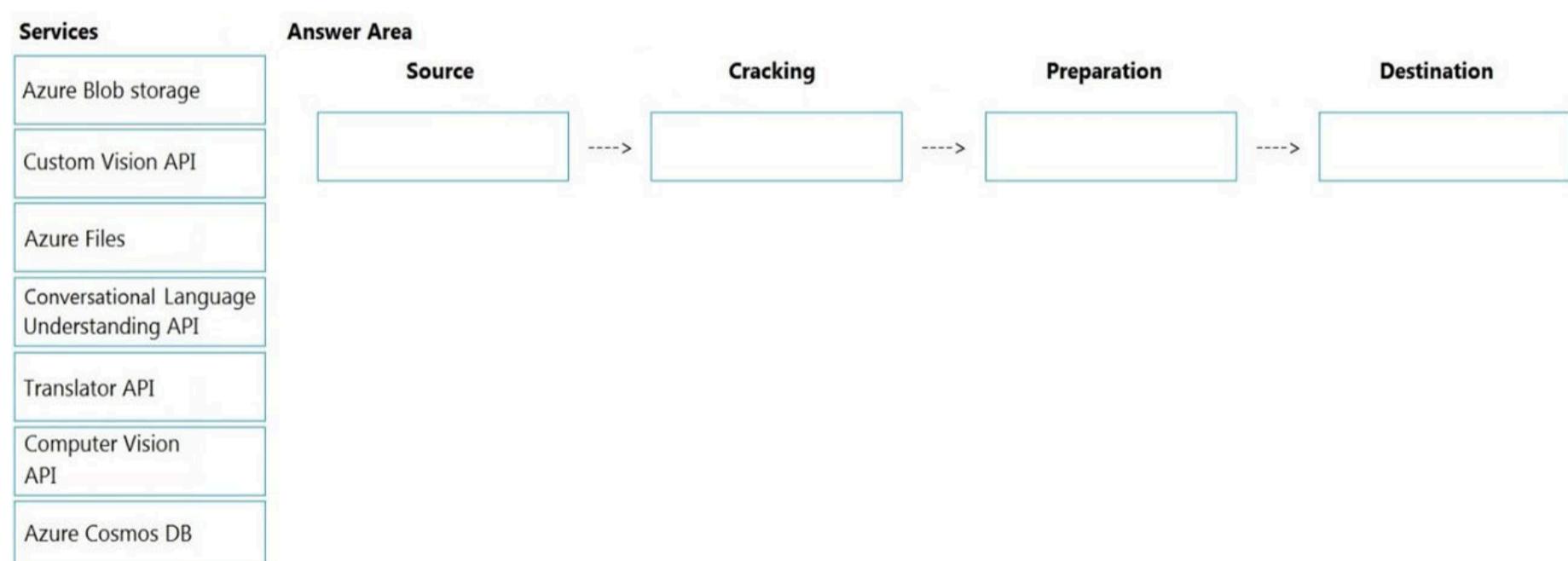
You are developing the smart e-commerce project.

You need to design the skillset to include the contents of PDFs in searches.

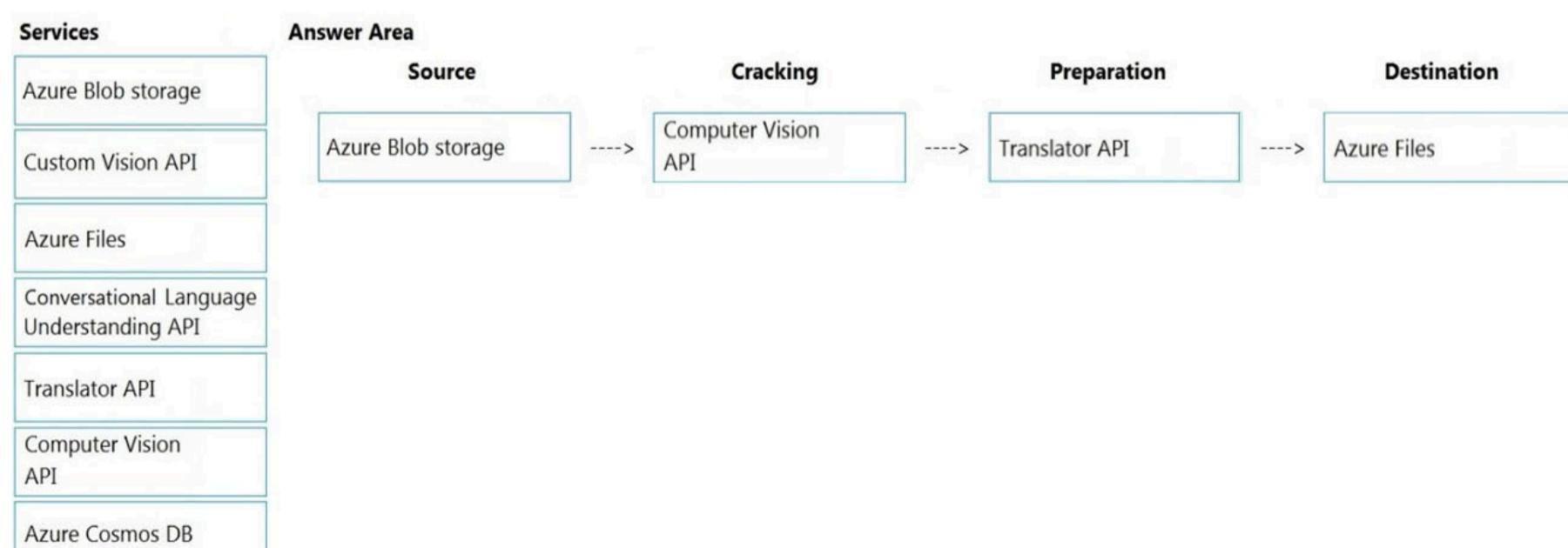
How should you complete the skillset design diagram? To answer, drag the appropriate services to the correct stages. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Correct Answer:



Box 1: Azure Blob storage -

At the start of the pipeline, you have unstructured text or non-text content (such as images, scanned documents, or JPEG files). Data must exist

in an Azure data storage service that can be accessed by an indexer.

Box 2: Computer Vision API -

Scenario: Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

The Computer Vision Read API is Azure's latest OCR technology (learn what's new) that extracts printed text (in several languages), handwritten text (English only), digits, and currency symbols from images and multi-page PDF documents.

Box 3: Translator API -

Scenario: Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Box 4: Azure Files -

Scenario: Store all raw insight data that was generated, so the data can be processed later.

Incorrect Answers:

The custom vision API from Microsoft Azure learns to recognize specific content in imagery and becomes smarter with training and time.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-concept-intro> <https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-ocr>

Question #1

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Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom.

Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research

Question

HOTSPOT -

You build a QnA Maker resource to meet the chatbot requirements.

Which RBAC role should you assign to each group? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Management-Accountants

<input type="checkbox"/>
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Consultant-Accountants

<input type="checkbox"/>
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Agent-CustomerServices

<input type="checkbox"/>
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Correct Answer:

Answer Area

Management-Accountants

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Contributor
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Consultant-Accountants

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Agent-CustomerServices

Owner
Contributor
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Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Box 1: Cognitive Service User -

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Approve=publish.

Cognitive Service User (read/write/publish): API permissions: All access to Cognitive Services resource except for ability to:

1. Add new members to roles.
2. Create new resources.

Box 2: Cognitive Services QnA Maker Editor

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

QnA Maker Editor: API permissions:

1. Create KB API
2. Update KB API
3. Replace KB API
4. Replace Alterations
5. "Train API" [in new service model v5]

Box 3: Cognitive Services QnA Maker Read

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

QnA Maker Read: API Permissions:

1. Download KB API
2. List KBs for user API
3. Get Knowledge base details
4. Download Alterations

Generate Answer -

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/role-based-access-control>

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        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

DRAG DROP -

You are planning the product creation project.

You need to recommend a process for analyzing videos.

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

Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.

Upload the video to blob storage.

Analyze the video by using the Computer Vision API.

Extract the transcript from Microsoft Stream.

Send the transcript to the Language Understanding API as an utterance.

Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.

Translate the transcript by using the Translator API.

Upload the video to file storage.

Answer Area

Correct Answer:

Actions

Analyze the video by using the Computer Vision API.

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Answer Area

Upload the video to blob storage.

Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.

Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.

Translate the transcript by using the Translator API.

Scenario: All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Step 1: Upload the video to blob storage

Given a video or audio file, the file is first dropped into a Blob Storage. T

Step 2: Index the video by using the Video Indexer API.

When a video is indexed, Video Indexer produces the JSON content that contains details of the specified video insights. The insights include: transcripts, OCRs, faces, topics, blocks, etc.

Step 3: Extract the transcript from the Video Indexer API.

Step 4: Translate the transcript by using the Translator API.

Reference:

<https://azure.microsoft.com/en-us/blog/get-video-insights-in-even-more-languages/> <https://docs.microsoft.com/en-us/azure/media-services/video-indexer/video-indexer-output-json-v2>

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Overview -

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You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

HOTSPOT -

You need to develop code to upload images for the product creation project. The solution must meet the accessibility requirements.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
public static async Task<string> SuggestAltText(ComputerVisionClient client,  
{  
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()  
    {  
        VisualFeatureTypes.Description  
        VisualFeatureTypes.ImageType  
        VisualFeatureTypes.Objects  
        VisualFeatureTypes.Tags  
    };  
    ImageAnalysis results = await client.AnalyzeImageAsync(image, features);  
  
    var c = results.Brands.DetectedBrands[0]  
    var c = results.Description.Captions[0]  
    var c = results.Metadata[0]  
    var c = results.Objects[0]  
  
    if(c.Confidence>0.5) return(c.Text);  
}
```

Answer Area

```
public static async Task<string> SuggestAltText(ComputerVisionClient client,
{
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()
    {
        VisualFeatureTypes.Description
        VisualFeatureTypes.ImageType
        VisualFeatureTypes.Objects
        VisualFeatureTypes.Tags
    };
    ImageAnalysis results = await client.AnalyzeImageAsync(image, features);
    var c = results.Brands.DetectedBrands[0]
    var c = results.Description.Captions[0]
    var c = results.Metadata[0]
    var c = results.Objects[0]

    if(c.Confidence>0.5) return(c.Text);
}
```

image)
Dictionary
stream
string

Correct Answer:

Reference:

<https://github.com/Azure-Samples/cognitive-services-dotnet-sdk-samples/blob/master/documentation-samples/quickstarts/ComputerVision/Program.cs>

Question #1

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General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom.

Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research

Question

DRAG DROP -

You are developing a solution for the Management-Bookkeepers group to meet the document processing requirements. The solution must contain the following components:

- A Form Recognizer resource
- An Azure web app that hosts the Form Recognizer sample labeling tool

The Management-Bookkeepers group needs to create a custom table extractor by using the sample labeling tool.

Which three actions should the Management-Bookkeepers group perform in sequence? To answer, move the appropriate cmdlets from the list of cmdlets to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Train a custom model	
Label the sample documents	>
Create a new project and load sample documents	<
Create a composite model	

Correct Answer:

Actions	Answer Area
	Create a new project and load sample documents
	>
	Label the sample documents
	<
Create a composite model	Train a custom model

Step 1: Create a new project and load sample documents

Create a new project. Projects store your configurations and settings.

Step 2: Label the sample documents

When you create or open a project, the main tag editor window opens.

Step 3: Train a custom model.

Finally, train a custom model.

Reference:

<https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/label-tool>

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Question

You are developing the knowledgebase.

You use Azure Video Analyzer for Media (previously Video indexer) to obtain transcripts of webinars.

You need to ensure that the solution meets the knowledgebase requirements.

What should you do?

- A. Create a custom language model
- B. Configure audio indexing for videos only
- C. Enable multi-language detection for videos
- D. Build a custom Person model for webinar presenters

Correct Answer: B

Can search content in different formats, including video

Audio and video insights (multi-channels). When indexing by one channel, partial result for those models will be available.

Keywords extraction: Extracts keywords from speech and visual text.

Named entities extraction: Extracts brands, locations, and people from speech and visual text via natural language processing (NLP).

Topic inference: Makes inference of main topics from transcripts. The 2nd-level IPTC taxonomy is included.

Artifacts: Extracts rich set of "next level of details" artifacts for each of the models.

Sentiment analysis: Identifies positive, negative, and neutral sentiments from speech and visual text.

Incorrect Answers:

C: Webinars Videos are in English.

Reference:

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

Community vote distribution

A (100%)

Question #1

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        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
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            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

HOTSPOT -

You are planning the product creation project.

You need to build the REST endpoint to create the multilingual product descriptions.

How should you complete the URI? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

api.cognitive.microsofttranslator.com
api-nam.cognitive.microsofttranslator.com
westus.tts.speech.microsoft.com
wwics.cognitiveservices.azure.com/translator

/detect
/languages
/text-to-speech
/translate

?api-version=3.0&to=es&to=pt

Correct Answer:

Answer Area

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Box 1: api.cognitive.microsofttranslator.com

Translator 3.0: Translate. Send a POST request to:

<https://api.cognitive.microsofttranslator.com/translate?api-version=3.0>

Box 2: /translate -

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-translate>

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Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

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Question

You need to develop an extract solution for the receipt images. The solution must meet the document processing requirements and the technical requirements.

You upload the receipt images to the Form Recognizer API for analysis, and the API returns the following JSON.

```
"documentResults": [
    {
        "docType": "prebuilt:receipt",
        "pageRange": [
            1,
            1
        ],
        "fields": {
            "ReceiptType": {
                "type": "string",
                "valueString": "Itemized",
                "confidence": 0.672
            },
            "MerchantName": {
                "type": "string",
                "valueString": "Tailwind",
                "text": "Tailwind",
                "boundingBox": [],
                "page": 1,
                "confidence": 0.913,
                "elements": [
                    "#/readResults/0/lines/0/words/0"
                ]
            }
        },
        ...
    }
]
```

Which expression should you use to trigger a manual review of the extracted information by a member of the Consultant-Bookkeeper group?

- A. documentResults.docType == "prebuilt:receipt"
- B. documentResults.fields.*.confidence < 0.7
- C. documentResults.fields.ReceiptType.confidence > 0.7
- D. documentResults.fields.MerchantName.confidence < 0.7

Correct Answer: D

Need to specify the field name, and then use < 0.7 to handle trigger if confidence score is less than 70%.

Scenario:

- ⇒ AI solution responses must have a confidence score that is equal to or greater than 70 percent.
- ⇒ When the response confidence score of an AI response is lower than 70 percent the response must be improved by human input.

Reference:

<https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/api-v2-0/reference-sdk-api-v2-0>

B (100%)



Question #1

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Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image": {  
        "uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

You are developing the smart e-commerce project.

You need to implement autocompletion as part of the Cognitive Search solution.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Make API queries to the autocomplete endpoint and include suggesterName in the body.
- B. Add a suggester that has the three product name fields as source fields.
- C. Make API queries to the search endpoint and include the product name fields in the searchFields query parameter.
- D. Add a suggester for each of the three product name fields.
- E. Set the searchAnalyzer property for the three product name variants.
- F. Set the analyzer property for the three product name variants.

Correct Answer: ABF

Scenario: Support autocompletion and autosuggestion based on all product name variants.

A: Call a suggester-enabled query, in the form of a Suggestion request or Autocomplete request, using an API. API usage is illustrated in the following call to the

Autocomplete REST API.

POST /indexes/myxboxgames/docs/autocomplete?search&api-version=2020-06-30

```
{  
    "search": "minecraf",  
    "suggesterName": "sg"  
}
```

B: In Azure Cognitive Search, typeahead or "search-as-you-type" is enabled through a suggester. A suggester provides a list of fields that undergo additional tokenization, generating prefix sequences to support matches on partial terms. For example, a suggester that includes a City field with a value for "Seattle" will have prefix combinations of "sea", "seat", "seatt", and "seattl" to support typeahead.

F. Use the default standard Lucene analyzer ("analyzer": null) or a language analyzer (for example, "analyzer": "en.Microsoft") on the field.

Reference:

<https://docs.microsoft.com/en-us/azure/search/index-add-suggesters>

Community vote distribution

ABF (100%)

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Planned Projects -

Contoso plans to develop the following:

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Document Processing Requirements

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Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

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Question

You are developing the document processing workflow.

You need to identify which API endpoints to use to extract text from the financial documents. The solution must meet the document processing requirements.

Which two API endpoints should you identify? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. /vision/v3.1/read/analyzeResults
- B. /formrecognizer/v2.0/custom/models/{modelId}/analyze
- C. /formrecognizer/v2.0/prebuilt/receipt/analyze
- D. /vision/v3.1/describe
- E. /vision/v3.1/read/analyze

Correct Answer: CE

C: Analyze Receipt - Get Analyze Receipt Result.

Query the status and retrieve the result of an Analyze Receipt operation.

Request URL:

<https://{{endpoint}}/formrecognizer/v2.0-preview/prebuilt/receipt/analyzeResults/{{resultId}}>

E: POST {{Endpoint}}/vision/v3.1/read/analyze

Use this interface to get the result of a Read operation, employing the state-of-the-art Optical Character Recognition (OCR) algorithms optimized for text-heavy documents.

Scenario: Contoso plans to develop a document processing workflow to extract information automatically from PDFs and images of financial documents

□ The document processing solution must be able to process standardized financial documents that have the following characteristics:

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□ *The document processing solution must be able to extract tables and text from the financial documents.

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Reference:

<https://westus2.dev.cognitive.microsoft.com/docs/services/form-recognizer-api-v2-preview/operations/GetAnalyzeReceiptResult>

<https://docs.microsoft.com/en-us/rest/api/computervision/3.1/read/read>

Community vote distribution

BC (41%)	BE (27%)	B (22%)	11%
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Question

HOTSPOT -

You are developing the knowledgebase by using Azure Cognitive Search.

You need to build a skill that will be used by indexers.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

{

```
"@odata.type": "#Microsoft.Skills.Text.EntityRecognitionSkill",
  "categories": [],
  "categories": [ "Email", "Persons", "Organizations"],
  "categories": [ "Locations", "Persons", "Organizations"],

  "defaultLanguageCode": "en",
  "includeTypelessEntities": true,
  "minimumPrecision": 0.7,
  "inputs": [
    { "name": "text",
      "source": "/document/content"}
  ],
  "outputs": [
    { "name": "persons", "targetName": "people"},
    { "name": "locations", "targetName": "locations"},
    { "name": "organizations", "targetName": "organizations"},

    { "name": "entities"}
    { "name": "categories"}
    { "name": "namedEntities"}
  ]
}
```

Correct Answer:

Answer Area

```
{  
  
  "@odata.type": "#Microsoft.Skills.Text.EntityRecognitionSkill",  
  "categories": [],  
  "categories": [ "Email", "Persons", "Organizations"],  
  "categories": [ "Locations", "Persons", "Organizations"],  
  
  "defaultLanguageCode": "en",  
  "includeTypelessEntities": true,  
  "minimumPrecision": 0.7,  
  "inputs": [  
    { "name": "text",  
      "source": "/document/content"}  
  ],  
  "outputs": [  
    { "name": "persons", "targetName": "people"},  
    { "name": "locations", "targetName": "locations"},  
    { "name": "organizations", "targetName": "organizations"},  
  
    { "name": "entities"}  
    { "name": "categories"}  
    { "name": "namedEntities"}  
  ]  
}
```

Box 1: "categories": ["Locations", "Persons", "Organizations"],

Locations, Persons, Organizations are in the outputs.

Scenario: Contoso plans to develop a searchable knowledgebase of all the intellectual property

Note: The categories parameter is an array of categories that should be extracted. Possible category types: "Person", "Location", "Organization", "Quantity",

"Datetime", "URL", "Email". If no category is provided, all types are returned.

Box 2: {"name": "entities"}

The include wikis, so should include entities in the outputs.

Note: entities is an array of complex types that contains rich information about the entities extracted from text, with the following fields name (the actual entity name. This represents a "normalized" form) wikipediaId wikipediaLanguage wikipediaUrl (a link to Wikipedia page for the entity) etc.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-entity-recognition>

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Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research

Question

You are developing the knowledgebase by using Azure Cognitive Search.

You need to process wiki content to meet the technical requirements.

What should you include in the solution?

- A. an indexer for Azure Blob storage attached to a skillset that contains the language detection skill and the text translation skill
- B. an indexer for Azure Blob storage attached to a skillset that contains the language detection skill
- C. an indexer for Azure Cosmos DB attached to a skillset that contains the document extraction skill and the text translation skill
- D. an indexer for Azure Cosmos DB attached to a skillset that contains the language detection skill and the text translation skill

Correct Answer: C

The wiki contains text in English, French and Portuguese.

Scenario: All planned projects must support English, French, and Portuguese.

The Document Extraction skill extracts content from a file within the enrichment pipeline. This allows you to take advantage of the document extraction step that normally happens before the skillset execution with files that may be generated by other skills.

Note: The Translator Text API will be used to determine the from language. The Language detection skill is not required.

Incorrect Answers:

Not A, not B: The wiki is stored in Azure Cosmos DB.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-document-extraction> <https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-text-translation>

Community vote distribution

D (73%)

C (28%)

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Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom.

Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

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Question

You are developing the knowledgebase by using Azure Cognitive Search.

You need to meet the knowledgebase requirements for searching equivalent terms.

What should you include in the solution?

- A. synonym map
- B. a suggester
- C. a custom analyzer
- D. a built-in key phrase extraction skill

Correct Answer: A

Within a search service, synonym maps are a global resource that associate equivalent terms, expanding the scope of a query without the user having to actually provide the term. For example, assuming "dog", "canine", and "puppy" are mapped synonyms, a query on "canine" will match on a document containing "dog".

Create synonyms: A synonym map is an asset that can be created once and used by many indexes.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-synonyms>

Community vote distribution

A (100%)

Question #1

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You have the following resources:

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- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

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Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

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Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

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```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
        {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
            "alttext": {  
                "en": "Bicycle",  
                "es": "Bicicleta",  
                "pt": "Bicicleta"  
            }  
        },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

HOTSPOT -

You are developing the shopping on-the-go project.

You need to build the Adaptive Card for the chatbot.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

```
{  
  "$schema": "http://adaptivecards.io.schemas/adaptive-card.json",  
  "type": "AdaptiveCard",  
  "version": "1.3",  
  "body": [  
    {  
      "type": "TextBlock",  
      "size": "Medium",  
      "weight": "Bolder",  
      "text": "${  
        if(language == 'en', 'en', name)  
        name  
        name.en  
        name[language]  
      }"  
    },  
    {  
      "type": "TextBlock",  
      "$when": "${stockLevel != 'OK'}"  
      "$when": "${stockLevel == 'OK'}"  
      "$when": "${stockLevel.OK}"  
      "text": "${stockLevel}",  
      "color": "Attention"  
    },  
    {  
      "type": "Image",  
      "url": "${image.uri}",  
      "size": "Medium",  
      "altText": "${  
        image.altText.en  
        image.altText.language  
        image.altText.[\"language\"]  
        image.altText.[language]  
      }"  
    }  
  ]  
}
```

```
{
  "$schema": "http://adaptivecards.io.schemas/adaptive-card.json",
  "type": "AdaptiveCard",
  "version": "1.3",
  "body": [
    {
      "type": "TextBlock",
      "size": "Medium",
      "weight": "Bolder",
      "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]
    },
    {
      "type": "TextBlock",
      "$when": "${stockLevel != 'OK'}"  
"$when": "${stockLevel == 'OK'}"  
"$when": "${stockLevel.OK}"
      "text": "${stockLevel}",
      "color": "Attention"
    },
    {
      "type": "Image",
      "url": "${image.uri}",
      "size": "Medium",
      "altText": "${image.altText.en}  
image.altText.language  
image.altText.[language]  
image.altText.[language]
    }
  ]
}
```

Box 1: name [language]

Chatbot must support interactions in English, Spanish, and Portuguese.

Box 2: "\$when:\${stockLevel != 'OK'}"

Product displays must include images and warnings when stock levels are low or out of stock.

Box 3: image.altText[language]

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Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

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Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the -

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Requirements -

Business Goals -

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Planned Changes -

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A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

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Remove the need for manual translations.

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        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

HOTSPOT -

You are developing the shopping on-the-go project.

You are configuring access to the QnA Maker (classic) resources.

Which role should you assign to AllUsers and LeadershipTeam? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

AllUsers:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

LeadershipTeam:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

Answer Area

AllUsers:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

Correct Answer:

LeadershipTeam:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

Box 1: QnA Maker Editor -

Scenario: Provide all employees with the ability to edit Q&As.

The QnA Maker Editor (read/write) has the following permissions:

- Create KB API
- Update KB API
- Replace KB API
- Replace Alterations
- "Train API" [in new service model v5]

Box 2: Contributor -

Scenario: Only senior managers must be able to publish updates.

Contributor permission: All except ability to add new members to roles

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/reference-role-based-access-control>

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        },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question

HOTSPOT -

You are developing the shopping on-the-go project.

You need to build the Adaptive Card for the chatbot.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
version": "1.3",
"body": [
  {

    "type": "TextBlock",
    "size": "Medium",
    "weight": "Bolder",
    "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]"}]

  },
{
  "type": "TextBlock",
  "$when": "${stockLevel != 'OK'}"  
"$when": "${stockLevel == 'OK'}"  
"$when": "${stockLevel.OK}"}

  color : Attention
},
{
  "type": "Image",
  "url": "${image.uri}",
  "size": "Medium",
  "altText": "${image.altText.en}  
image.altText.language  
image.altText["language"]  
image.altText[language]}
```

Answer Area

```
version": "1.3",
"body": [
  {

    "type": "TextBlock",
    "size": "Medium",
    "weight": "Bolder",
    "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]
```

},
{

"type": "TextBlock",

```
$when": "${stockLevel != 'OK'}"  
$when": "${stockLevel == 'OK'}"  
$when": "${stockLevel.OK}"
```

color : Attention

},
{

"type": "Image",
 "url": "\${image.uri}",
 "size": "Medium",
 "altText": "\${image.altText.en}
image.altText.language
image.altText["language"]
image.altText[language]

}

]

Box 1: name.en -

Box 2: "\$when": "\${stockLevel != 'OK'}"

Product displays must include images and warnings when stock levels are low or out of stock.

Box 3:image.altText.en

Question #1

Introductory Info

Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom.

Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research

Question

You are developing the chatbot.

You create the following components:

- A QnA Maker resource
- A chatbot by using the Azure Bot Framework SDK

You need to integrate the components to meet the chatbot requirements.

Which property should you use?

- A. QnAMakerOptions.StrictFilters
- B. QnADialogResponseOptions.CardNoMatchText
- C. QnAMakerOptions.RankerType
- D. QnAMakerOptions.ScoreThreshold

Correct Answer: C

Scenario: When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

When no good match is found by the ranker, the confidence score of 0.0 or "None" is returned and the default response is "No good match found in the KB". You can override this default response in the bot or application code calling the endpoint. Alternately, you can also set the override response in Azure and this changes the default for all knowledge bases deployed in a particular QnA Maker service.

Choosing Ranker type: By default, QnA Maker searches through questions and answers. If you want to search through questions only, to generate an answer, use the RankerType=QuestionOnly in the POST body of the GenerateAnswer request.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/best-practices>

Community vote distribution

D (86%)

14%

Introductory Info

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Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

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Question

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You create the following components:

- A QnA Maker resource
- A chatbot by using the Azure Bot Framework SDK

You need to add an additional component to meet the technical requirements and the chatbot requirements.

What should you add?

- A. Microsoft Translator
- B. Language Understanding
- C. Orchestrator
- D. chatdown

Correct Answer: C

Scenario: All planned projects must support English, French, and Portuguese.

If a bot uses multiple LUIS models and QnA Maker knowledge bases (knowledge bases), you can use the Dispatch tool to determine which LUIS model or QnA

Maker knowledge base best matches the user input. The dispatch tool does this by creating a single LUIS app to route user input to the correct model.

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-tutorial-dispatch>

Community vote distribution

C (48%) B (20%) A (16%) Other

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