



(AI-102)

Designing and Implementing a Microsoft Azure AI Solution

Total: **329 Questions**

Link: <https://certyiq.com/papers/microsoft/ai-102>

Question: 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

AddPhraseListAsync
Phraselist
PhraselistCreateObject
Phrases
SavePhraselistAsync
UploadPhraseListAsync

Answer Area

```
var phraselistId = await client.Features. [AddPhraseListAsync]
(appId, versionId, new [PhraselistCreateObject]
{
    EnabledForAllModels = false,
    IsExchangeable = true,
    Name = "PL1",
    Phrases = "item1,item2,item3,item4,item5"
});
```

Answer:**Values**

AddPhraseListAsync
Phraselist
PhraselistCreateObject
Phrases
SavePhraselistAsync
UploadPhraseListAsync

Answer Area

```
var phraselistId = await client.Features. [AddPhraseListAsync]
(appId, versionId, new [PhraselistCreateObject]
{
    EnabledForAllModels = false,
    IsExchangeable = true,
    Name = "PL1",
    Phrases = "item1,item2,item3,item4,item5"
});
```

Explanation:**Before you start preparation, please note below points:**

1) This is a question bank holding real exam questions from launch of this exam till today, Microsoft keep renaming few of their services, prepare accordingly:

Azure Cognitive Search is now "Azure AI Search"

Azure Cognitive vision is now "Azure AI Vision"

Form Recognizer is now "Azure AI Document Intelligence"

2) You will find these questions in your real exam, make sure to mark same answers in exam as we have in this question bank to get 100% success.

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 .

The constructor new PhraselistCreateObject suggests that an object of type PhraselistCreateObject is being instantiated.

Reference:

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

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Question: 2

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.

Answer:

Actions

Answer Area

Run a container that has version set as an environment variable.

Select v1.1 of app1.

Export the model by using the Export as JSON option.

Export the model by using the Export for containers (GZIP) option.

Select v1.1 of app1.

Run a container and mount the model file.

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.

Explanation:

Step 1: Select v1.1 of app1.

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

Step 2: 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.

The screenshot shows the 'Versions' list page in the LUIS portal. At the top, there are buttons for 'Rename', 'Clone', and 'Export'. The 'Export' button is highlighted with a blue border. A dropdown menu is open under 'Export' with two options: 'Export as JSON' and 'Export for container (GZIP)', with 'Export for container (GZIP)' being the selected option. Below the menu, the table lists a single version entry:

Version name	Created	Last modified
0.1 (Active & Production)	5/3/18	9/6/18

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>

Question: 3

CertyIQ

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

Answer: C

Explanation:

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-u](https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/overview/overview)s/azure/cognitive-services/qnamaker/overview/overview

Question: 4

CertyIQ

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

Answer: C

Explanation:

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>

Question: 5

CertyIQ

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",
    "sku": {
        "name": "S0"
    },
    "properties": {},
    "identity": {
        "type": "SystemAssigned"
    }
}
```

Answer:

Answer Area

```
https://management.azure.com/subscriptions/xxxxxxxxx-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"  
    }  
}
```

Explanation:

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>

Question: 6

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

Answer: BC

Explanation:

Fairness is a core ethical principle that all humans aim to understand and apply. This principle is even more important when AI systems are being developed. Key checks and balances need to make sure that the system's decisions don't discriminate or run a gender, race, sexual orientation, or religion bias toward a group or individual.

Inclusiveness mandates that AI should consider all human races and experiences, and inclusive design practices can help developers to understand and address potential barriers that could unintentionally exclude people. Where possible, speech-to-text, text-to-speech, and visual recognition technology should be used to empower people with hearing, visual, and other impairments.

Reference:

<https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai#fairness>

<https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/innovate/best-practices/trusted-ai#inclusiveness>

Question: 7

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.

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.

- Create a custom Dockerfile.
- Pull the Anomaly Detector container image.
- Build the image.
- Push the image to an Azure container registry.

Explanation:

1. Create a custom Dockerfile.

This is the first step in containerization. The Dockerfile defines how the containerized application should be built, including dependencies, configurations, and commands.

2. Pull the Anomaly Detector container image.

The Anomaly Detector image is a pre-built container image that may be required as a base image. Pulling it ensures that we have the necessary dependencies and configurations in place.

3. Build the image.

After creating the Dockerfile and pulling any necessary images, the next step is to build the final image. This process converts the Dockerfile and application code into a runnable container image.

4. Push the image to an Azure container registry.

Once the image is built, it needs to be stored in a container registry for deployment. Azure Container Registry (ACR) is commonly used for cloud deployments.

Question: 8

CertyIQ

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
```

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
```

Explanation:

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>

CertyIQ

Question: 9

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")

Answer: A

Explanation:

A. Create_resource(client, "res1", "ComputerVision", "F0", "westus")

"ComputerVision": This is the correct service for generating image captions.

"F0": This is the free tier, which meets the requirement.

"westus": Specifies the West US Azure region.

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Question: 10

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.

Answer: D

Explanation:

D. The secondary subscription key was reset.

This HTTP request regenerates the secondary subscription key (Key2) for the specified Azure Cognitive Services account.

Regenerates the secondary account key for the specified Cognitive Services account.

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

CertyIQ**Question: 11**

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

Answer: ACF**Explanation:**

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.

File 2 and 5 are excluded.

New service limits now goes up to 500MB so...

File 1, 3, and 6 are correct for "training the model", however if MSFT remove the word "training" from the

question - be careful.

Reference:

<https://docs.microsoft.com/en-gb/learn/modules/work-form-recognizer/3-get-started>

<https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/service-limits?tabs=v21>

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

Question: 12

CertyIQ

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.

Answer: ABF

Explanation:

- A. The index size will increase.
- B. Query times will increase.
- F. Azure Key Vault is required

<https://docs.microsoft.com/en-us/azure/search/search-security-overview#customer-managed-keys-cmk>

Customer-managed keys (CMK)

Customer-managed keys require an additional billable service, Azure Key Vault, which can be in a different region, but under the same subscription, as Azure Cognitive Search. Enabling CMK encryption will increase index size and degrade query performance. Based on observations to date, you can expect to see an increase of 30%-60% in query times, although actual performance will vary depending on the index definition and types of queries. Because of this performance impact, we recommend that you only enable this feature on indexes that really require it.

Question: 13

CertyIQ

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

Answer: A

Explanation:

A. transparency: "When an AI application relies on personal data, such as a facial recognition system that takes images of people to recognize them; you should make it clear to the user how their data is used and retained, and who has access to it." from: <https://docs.microsoft.com/en-us/learn/paths/prepare-for-ai-engineering/>

Question: 14

CertyIQ

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

Answer: B

Explanation:

Answer is no. you should create a private link with private endpoint

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>

Question: 15

CertyIQ

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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

Answer: B

Explanation:

Correct Answer is B. No. this scenario routes over public internet, to do this without touching public internet you would use a private endpoint on a vnet then private link to access it.

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>

CertyIQ

Question: 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.

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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

Answer: B

Explanation:

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>

CertyIQ

Question: 17

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

Answer: A**Explanation:****A. Anomaly Detector**

Azure Anomaly Detector is specifically designed to identify unusual patterns and anomalies in time series data, which is essential for predictive maintenance and detecting potential machinery failures based on IoT sensor data.

Question: 18**CertyIQ**

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 =  (AudioStreamContainerFormat.MP3);
 (AudioConfig SetProperty)
 (AudioStreamFormat GetCompressedFormat)
 (AudioStreamFormat GetWaveFormatPCM)
 (PullAudioInputStream)

var speechConfig = SpeechConfig.FromSubscription("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus");

var audioConfig = AudioConfig.FromStreamInput(pushStream, audioFormat);

using (var recognizer = new  (speechConfig, audioConfig))
 (KeywordRecognizer)
 (SpeakerRecognizer)
 (SpeechRecognizer)
 (SpeechSynthesizer)

{
    var result = await recognizer.RecognizeOnceAsync();
    var text = result.Text;
}
```

Answer:

Answer Area

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

Explanation:

1. **AudioStreamFormat.GetCompressedFormat.**

This correctly specifies that the input audio is in a compressed format (MP3), which is necessary when working with non-PCM audio streams in Azure Speech SDK.

2. **SpeechRecognizer.**

This is the correct recognizer type because it is used for speech-to-text conversion, which matches the functionality required in the code.

Question: 19

CertyIQ

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:

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

Explanation:

From Video feed - Face

Facial Expression from - Face

Audio Feed is - Speech

<https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-identity#face-detection-and-analysis>

Face detection is required as a first step in all the other scenarios. The Detect API detects human faces in an image and returns the rectangle coordinates of their locations. It also returns a unique ID that represents the stored face data. This is used in later operations to identify or verify faces.

Optionally, face detection can extract a set of face-related attributes, such as head pose, age, emotion, facial hair, and glasses. These attributes are general predictions, not actual classifications. Some attributes are useful to ensure that your application is getting high-quality face data when users add themselves to a Face service. For example, your application could advise users to take off their sunglasses if they're wearing sunglasses

Reference:

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

CertyIQ**Question: 20**

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

Answer: DE**Explanation:**

D.Azure Cognitive Search: This resource is created to facilitate the searching of your knowledge base. It allows the QnA Maker service to quickly search through the data to find the most relevant answers to user queries.

E.Azure App Service: This resource hosts the QnA Maker's runtime environment. It essentially serves as the web app through which your QnA Maker service is deployed and accessed.

CertyIQ**Question: 21**

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

Answer: B

Explanation:

In the Azure portal, find your Language Understanding (LUIS) authoring resource. It has the type LUIS.Authoring.

In the resource's Access Control (IAM) page, add the role of contributor for the user that you want to contribute.

For detailed steps, see Assign Azure roles using the Azure portal."

Reference:

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

Question: 22

CertyIQ

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

Answer: A

Explanation:

Migrating to a higher tier in Azure Cognitive Search can provide more resources, such as increased storage, throughput, and replicas, which can help reduce the likelihood of search query requests being throttled.

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>

Question: 23

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

Detect the incoming language:

Speech to Text

Respond in the callers' own language:

Text Analytics

Text to Speech

Translator

Answer:

Services**Answer Area**

Speaker Recognition

Detect the incoming language:

Speech to Text

Speech to Text

Respond in the callers' own language:

Text to Speech

Text Analytics

Text to Speech

Translator

Explanation:

A. Speech-to-text.

You use Speech-to-text recognition when you need to identify the language in an audio source and then transcribe it to text.

B. Text to Speech.

the output is voice.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/language-identification?tabs=once&pivots=programming-language-csharp#speech-to-text>

Question: 24

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

Answer: C**Explanation:**

C. the FormRecognizerClient client and the StartRecognizeReceiptsFromUri method.

The FormRecognizerClient client is used for recognizing content and structured data from forms, and the StartRecognizeReceiptsFromUri method specifically targets extracting data from receipts using a prebuilt model.

Question: 25

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

Answer: D**Explanation:**

<https://learn.microsoft.com/en-us/azure/search/cognitive-search-attach-cognitive-services?tabs=portal>

When configuring an optional AI enrichment pipeline in Azure Cognitive Search, you can enrich a limited number of documents free of charge. For larger and more frequent workloads, you should attach a billable multi-service Cognitive Services resource.

A multi-service resource references "Cognitive Services" as the offering, rather than individual services, with access granted through a single API key. This key is specified in a skillset and allows Microsoft to charge you for using these APIs:

- Computer Vision for image analysis and optical character recognition (OCR)
- Language service for language detection, entity recognition, sentiment analysis, and key phrase extraction

Question: 26

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

Answer: B

Explanation:

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>

Question: 27

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

Answer: B

Explanation:

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>

Question: 28

CertyIQ

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

Answer: A

Explanation:

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>

Question: 29

CertyIQ

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.

Answer: D

Explanation:

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>

Question: 30

CertyIQ

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

<input type="text" value="https://"/>	<input type="text" value="api.cognitive.microsofttranslator.com"/> <input type="text" value="eastus.api.cognitive.microsoft.com"/> <input checked="" type="text" value="portal.azure.com"/>	<input type="text" value="/text/analytics/v3.1/entities/recognition/general"/> <input type="text" value="/text/analytics/v3.1/languages"/> <input type="text" value="/translator/text/v3.0/translate?to=en"/> <input type="text" value="/translator/text/v3.0/translate?to=fr"/>
---------------------------------------	---	---

Answer:

Answer Area

<input type="text" value="https://"/>	<input type="text" value="api.cognitive.microsofttranslator.com"/> <input checked="" type="text" value="eastus.api.cognitive.microsoft.com"/> <input type="text" value="portal.azure.com"/>	<input type="text" value="/text/analytics/v3.1/entities/recognition/general"/> <input checked="" type="text" value="/text/analytics/v3.1/languages"/> <input type="text" value="/translator/text/v3.0/translate?to=en"/> <input type="text" value="/translator/text/v3.0/translate?to=fr"/>
---------------------------------------	---	--

Explanation:

Box1: eastus.api.cognitive.microsoft.com.

Box2: /text/analytics/v3.1/languages.

<https://learn.microsoft.com/en-us/rest/api/cognitiveservices-textanalytics/3.0/languages/languages>

tabs=HTTP.

NOTE:

Pay special attention to the Sample Request provided. Request to the API should be of the form:

POST Endpoint /text/analytics/v3.0/languages

Where the Endpoint as stated under the sub-heading "URI Parameters" was described as quoted here (see "Description" column of the table):

"Supported Cognitive Services endpoints (protocol and hostname, for example:
<https://westus.api.cognitive.microsoft.com>)."

Question: 31

CertyIQ

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

Answer: B

Explanation:

B. a table projection.

To analyze the extracted information from the Azure Cognitive Search index with Microsoft Power BI, you should add a table projection to the indexing. This will allow you to present the data in a tabular format that can be easily imported and analyzed by Power BI with minimal development effort.

Question: 32

CertyIQ

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

Answer: A

Explanation:

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>

Question: 33**CertyIQ****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.

Answer:

See explanation below.

Explanation:

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 ...



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>

Question: 34

CertyIQ

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.

Answer:

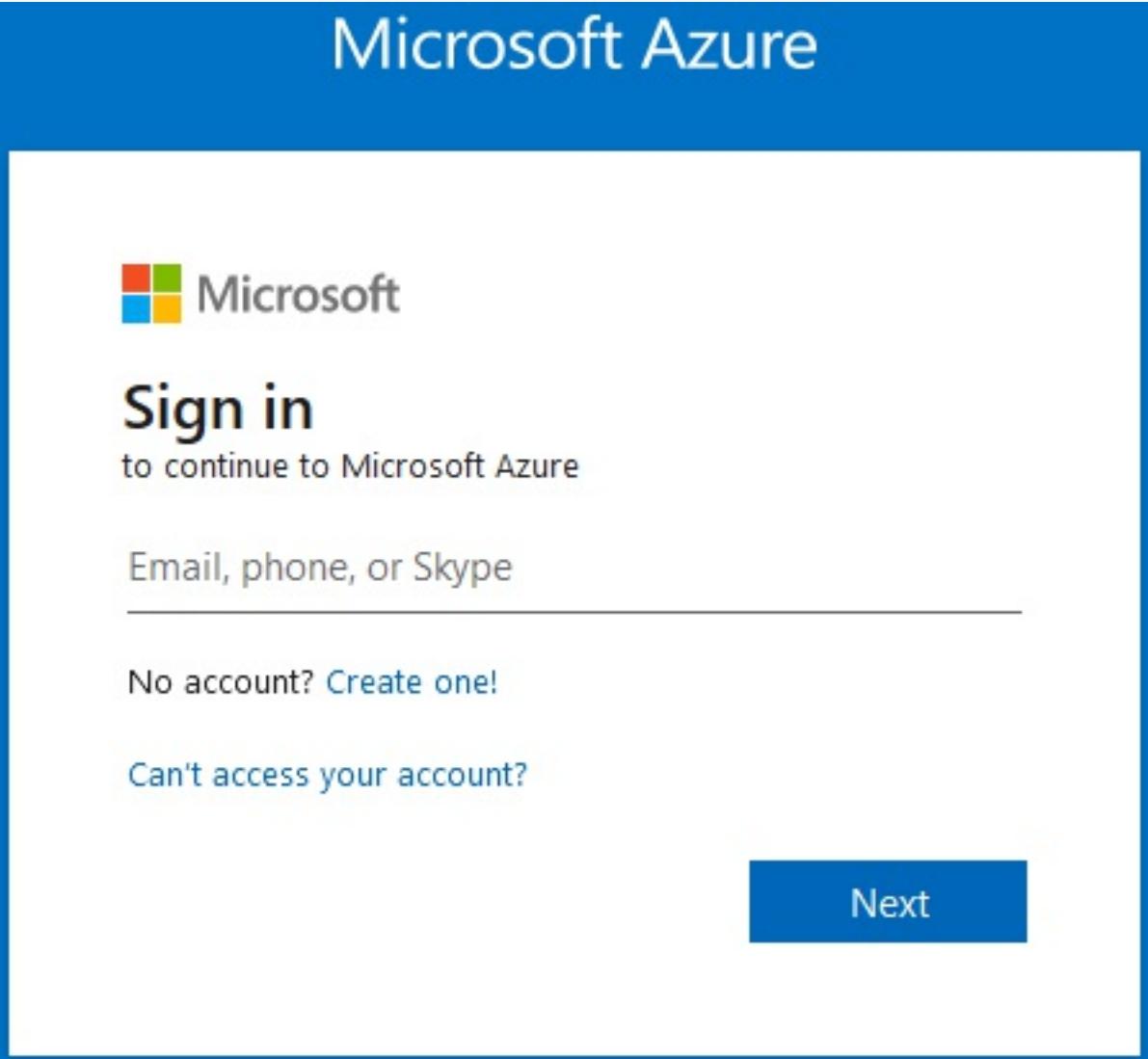
See explanation below.

Explanation:

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 * ⓘ

 West US 2

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 * ⓘ

 MyCognitiveServicesResource ✓

Pricing tier * ⓘ

[View full pricing details](#)

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I confirm I have read and understood the notice below.

[Review + create](#)

< Previous

Next : Tags >

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.

+ Add index Import data Search explorer 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.

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="button" value="Samples"/>
Type	Name
	realestate-us-sample
	② <input type="button" value="hotels-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.

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](#)

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 * <input type="text" value="hotels-sample-index"/>	Search mode <input type="text" value="sg"/>																																				
Key * <input type="text" value="HotelId"/>																																					
Suggester name <input type="text" value="sg"/>																																					
<input type="button" value="Add field"/> <input type="button" value="Add subfield"/> <input type="button" value="Delete"/> <table border="1"> <thead> <tr> <th>Field name</th> <th>Type</th> <th>Retrievable</th> <th>Filterable</th> <th>Sortable</th> <th>Facetable</th> <th>Searchable</th> <th>Analyzer</th> <th>Suggester</th> </tr> </thead> <tbody> <tr> <td>HotelId</td> <td>Edm.String</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="button" value="English - Microsoft"/></td> <td><input type="button" value="..."/></td> </tr> <tr> <td>HostName</td> <td>Edm.String</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="button" value="English - Microsoft"/></td> <td><input type="button" value="..."/></td> </tr> <tr> <td>Description</td> <td>Edm.String</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="button" value="English - Microsoft"/></td> <td><input type="button" value="..."/></td> </tr> </tbody> </table>		Field name	Type	Retrievable	Filterable	Sortable	Facetable	Searchable	Analyzer	Suggester	HotelId	Edm.String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="English - Microsoft"/>	<input type="button" value="..."/>	HostName	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="English - Microsoft"/>	<input type="button" value="..."/>	Description	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="English - Microsoft"/>	<input type="button" value="..."/>
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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>

Question: 35

CertyIQ

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.

Answer:

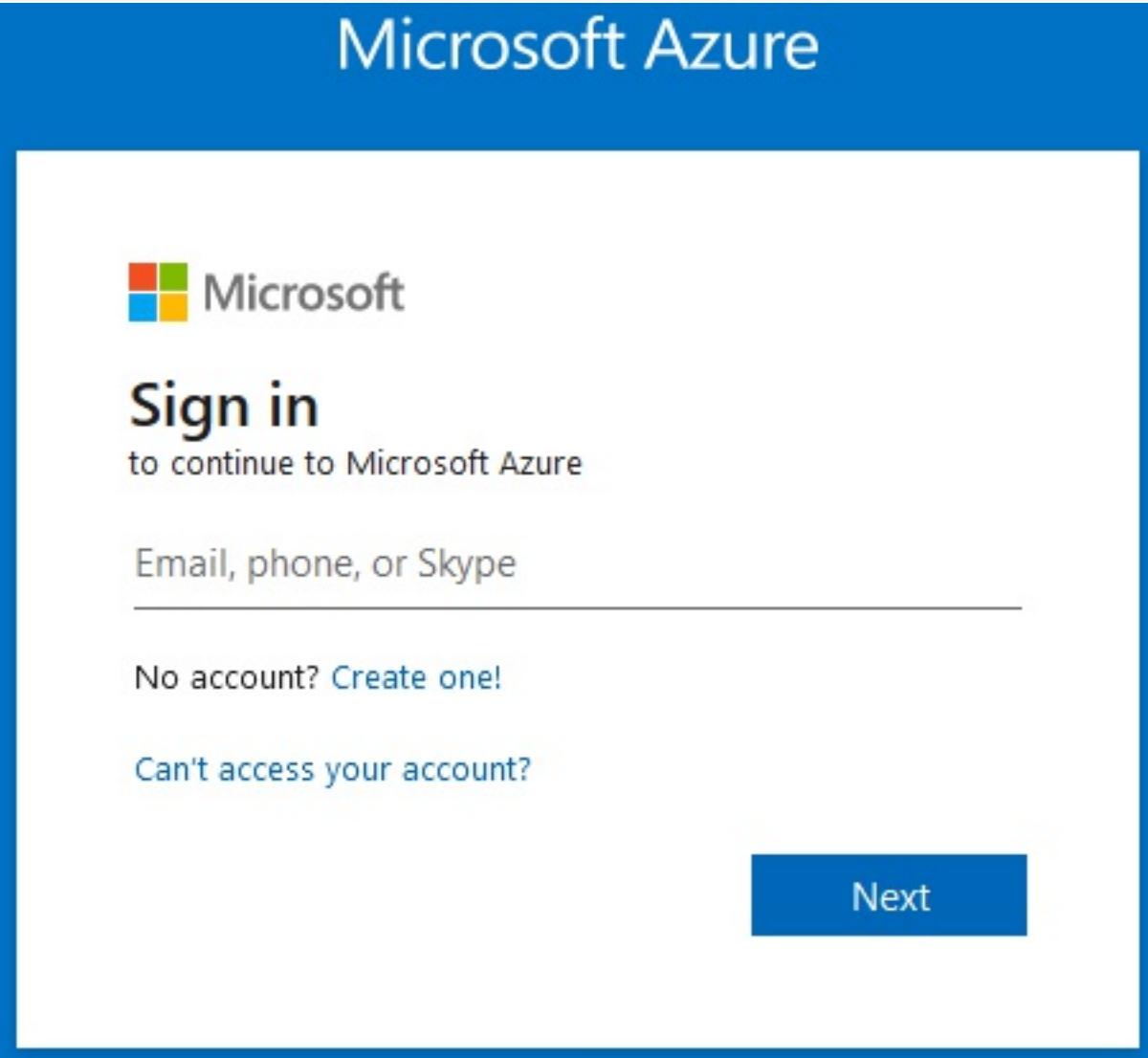
See explanation below.

Explanation:

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



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 * ⓘ

 West US 2

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 * ⓘ

 MyCognitiveServicesResource ✓

Pricing tier * ⓘ

[View full pricing details](#)

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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>

Question: 36

CertyIQ

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.

Answer:

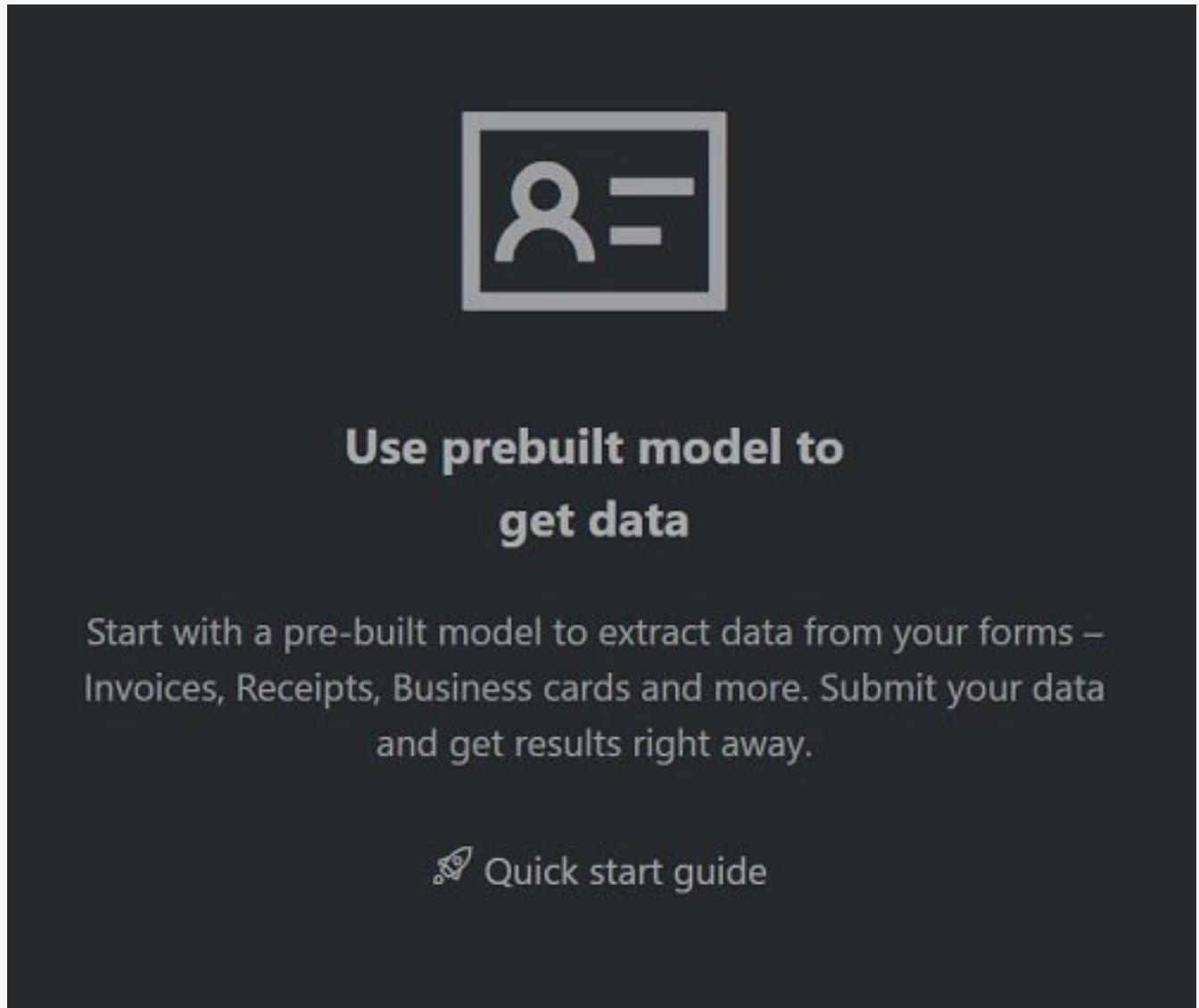
See explanation below.

Explanation:

Step 1: Sign in to the Azure Portal.

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

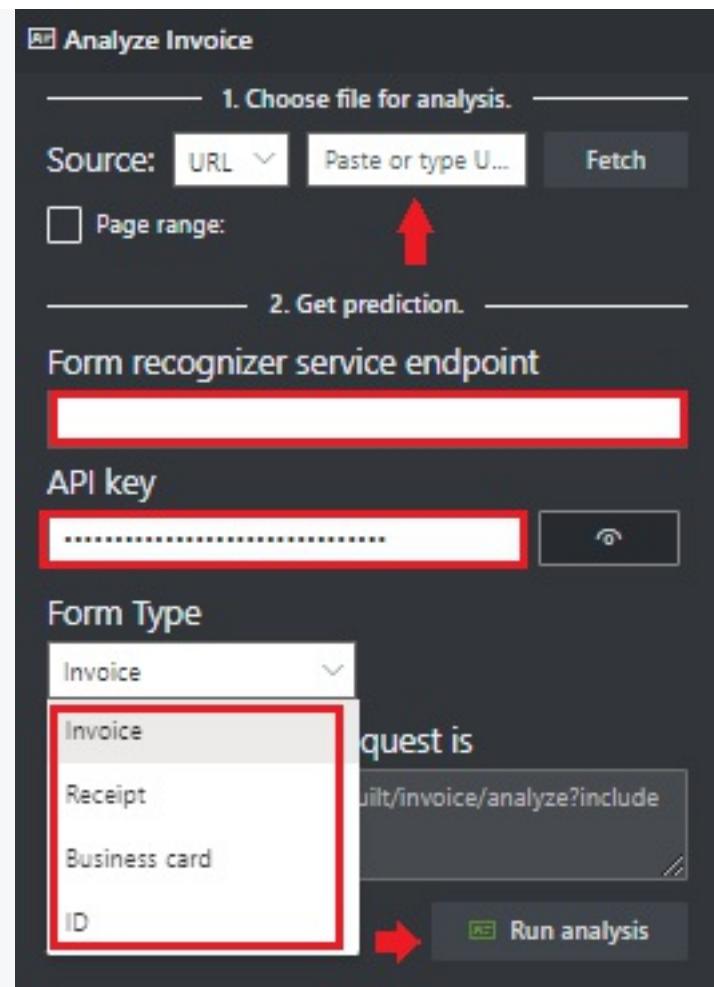
Step 3: On the sample tool home page select Use prebuilt model to get data.



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.

Page # / Field name / Value	Confidence
AmountDue	96.80%
text: \$610.00	
valueNumber: 610	
BillingAddress	95.10%
123 Bill St Redmond WA, 98052	
BillingAddressRecipient	95.40%
Microsoft Finance	
CustomerAddress	95.10%
123 Other St Redmond WA, 98052	
CustomerAddressRecipient	95.40%
Microsoft Corp	
CustomerID	96.10%
CID-12345	
CustomerName	94.60%
MICROSOFT CORPORATION	
DueDate	96.90%
text: 12/15/2019	
valueDate: 2019-12-15	
InvoiceDate	96.70%
text: 11/15/2019	
valueDate: 2019-11-15	
InvoiceId	97.00%
INV-100	
InvoiceTotal	96.70%
text: \$110.00	
valueNumber: 110	
Items	Nan
Click to view analyzed table	
PreviousUnpaidBalance	95.60%
text: \$500.00	
valueNumber: 500	
PurchaseOrder	96.20%
PO-5333	
RemittanceAddress	94.80%
123 Remit St New York, NY, 10001	

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

-
1. Create a form recognizer service as part of azure ai service
 2. browse to <https://fott-2-1.azurewebsites.net/>
 3. select prebuilt model for invoices
 4. choose local file because the file is a local disk c: and insert the path
 5. come back to the azure portal and copy endpoint and key from the relative page of the form recognizer service
 6. come back to <https://fott-2-1.azurewebsites.net/prebuilt-analyze>
 7. past endpoint and key
 8. run analysis
 9. download
 10. choose json format and the destination indicated
-

Reference:

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

Question: 37

CertyIQ

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)

Answer: A

Explanation:

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/>

Question: 38

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

Answer: B

Explanation:

B Retrievable: Include the category field in the search results.

Searchable: Ensure that users can search for words in the category field.

Facetable: Ensure that users can perform drill down filtering based on category.

Reference:

<https://learn.microsoft.com/en-us/rest/api/searchservice/create-index#-field-definitions>

<https://learn.microsoft.com/en-us/rest/api/searchservice/create-index#-field-definitions>

- retrievable Indicates whether the field can be returned in a search result.

- searchable Indicates whether the field is full-text searchable and can be referenced in search queries.

- facetable Indicates whether to enable the field to be referenced in facet queries.

Question: 39

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: [\[email protected\]](mailto:) -

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.

Answer:

See explanation below.

Explanation:

 = admin@abc.com

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
---------------	------

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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

CertyIQ

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: -

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.

Answer:

See explanation below.

Explanation:

 = admin@abc.com

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>

Question: 41

CertyIQ

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: -

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

Answer:

See explanation below.

Explanation:

 = admin@abc.com

Step 1: Login -

Browse to the Azure Video Indexer website and sign in.

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

Login -

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>

Question: 42

CertyIQ

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: -

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.

Answer:

💡 See explanation below.

Explanation:

 = admin@abc.com

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>

Question: 43

CertyIQ

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: -

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.

Answer:

See explanation below.

Explanation:

 = admin@abc.com

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>

Question: 44

CertyIQ

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: -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

You need to ensure that a user named 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.

Answer:

See explanation below.

Explanation:

 = admin@abc.com

Cognitive Services Contributor

Lets you create, read, update, delete and manage keys of Cognitive Services.

1. Sign in to the Azure portal (<https://portal.azure.com/>) using your account credentials.
2. In the left-hand navigation menu, click on "All services" and search for "Subscriptions." Click on the "Subscriptions" service to open the list of your Azure subscriptions.
3. Find the subscription with the ID "AAA12345678" and click on it to open the subscription details page.
4. In the left-hand navigation menu of the subscription details page, click on "Access control (IAM)."
5. Click on the "+ Add" button to add a new role assignment. This will open the "Add role assignment" pane.
6. In the "Role" dropdown menu, search for and select the "User Access Administrator" role. This role allows a user to manage access to Azure resources, including the ability to manage subscription keys, while adhering to the principle of least privilege.
7. In the "Select" field, type "admin@abc.com" and select the user from the list of suggestions.
8. Click on the "Save" button to complete the role assignment process.

Question: 45

CertyIQ

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

Answer: A

Explanation:

A. Azure Metrics Advisor.

Azure Metrics Advisor is a service that provides an end-to-end anomaly detection platform, which includes data ingestion, anomaly detection, root cause analysis, and alerting. It is designed to monitor and detect anomalies in time-series data, diagnose incidents, and provide insights.

CertyIQ

Question: 46

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. readInputStreamAsync
- B. analyzeImagesByDomainInputStreamAsync
- C. tagImageInputStreamAsync
- D. describeImageInputStreamAsync

Answer: D

Explanation:

D. describeImageInputStreamAsync.

The API call you should perform to provide an output in complete sentences for users who are vision impaired is describeImageInputStreamAsync.

The describe feature of the Computer Vision API generates a human-readable sentence to describe the contents of an image. This is particularly useful for accessibility purposes, as it allows visually impaired users to understand what is in an image without needing to see it. The describe feature can also be customized to provide additional details or context, if desired.

CertyIQ

Question: 47

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:

Actions

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



Answer Area

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



Explanation:

1.Change Domains to General (compact).

Some models in Azure Custom Vision need to be in a compact domain to be exportable.

If the model is in a non-compact domain, it cannot be exported.

Thus, switching to General (compact) is the first step.

2.Retrain the model.

After changing the domain, the model must be retrained so that it is optimized for the new domain.

This ensures that the model is functioning correctly under the new settings.

3.Export the model.

Once the model is in the correct General (compact) domain and retrained, it can now be exported for use in offline or embedded scenarios.

Question: 48

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.

Answer: A

Explanation:

A. Add a human review and approval step before making decisions that affect the staff's financial situation.

This option aligns with the responsible AI principle of fairness and accountability. By adding a human review and approval step, you ensure that the decisions affecting staff bonuses are reviewed by humans who can consider factors beyond just the sentiment analysis results. It adds an element of transparency, accountability, and fairness to the process, reducing the risk of biased or unfair decisions.

Question: 49

CertyIQ

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

Answer: C

Explanation:

C. the virtual network settings for ta1.

This involves enabling virtual network service endpoints for your Language service and associating it with vnet1. This configuration restricts access to the Language service so that only resources within the specified virtual network can reach it.

Question: 50

CertyIQ

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

Answer: C**Explanation:**

The Multivariate Anomaly Detection APIs further enable developers by easily integrating advanced AI for detecting anomalies from groups of metrics, without the need for machine learning knowledge or labeled data.

<https://learn.microsoft.com/en-us/azure/cognitive-services/anomaly-detector/overview#multivariate-anomaly-detection>

CertyIQ**Question: 51**

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

Answer: D**Explanation:**

D. the Docker Engine.

Using the Docker Engine allows you to run containerized applications on local infrastructure, which is ideal for environments with limited or intermittent connectivity. This approach also helps minimize costs since you won't be relying on cloud-based services that may incur additional expenses.

CertyIQ**Question: 52**

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:

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.

Explanation:

1. Create a private endpoint
2. Use Azure roles

<https://learn.microsoft.com/en-us/azure/search/service-create-private-endpoint#why-use-a-private-endpoint-for-secure-access>

Private Endpoints for Azure Cognitive Search allow a client on a virtual network to securely access data in a

search index over a Private Link. The private endpoint uses an IP address from the virtual network address space for your search service. Network traffic between the client and the search service traverses over the virtual network and a private link on the Microsoft backbone network, eliminating exposure from the public internet.

<https://learn.microsoft.com/en-us/azure/search/search-security-rbac?tabs=config-svc-portal%2Croles-portal%2Ctest-portal%2Ccustom-role-portal%2Cdisable-keys-portal#grant-access-to-a-single-index>

In some scenarios, you may want to limit application's access to a single resource, such as an index.

The portal doesn't currently support role assignments at this level of granularity, but it can be done with PowerShell or the Azure CLI.

Question: 53

CertyIQ

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

Answer: A

Explanation:

A. Batch

Use your time series to detect any anomalies that might exist throughout your data. This operation generates a model using your entire time series data, with each point analyzed with the same model.

<https://learn.microsoft.com/en-us/azure/cognitive-services/anomaly-detector/overview>

Reference:

<https://learn.microsoft.com/en-us/azure/cognitive-services/anomaly-detector/overview#univariate-anomaly-detection>

Question: 54

CertyIQ

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:****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

- 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.

**Explanation:**

- Provision an on-prem Kubernetes cluster that is isolated from Internet
- Pull an image from MCR
- Run the container and specify an API Key and Endpoint URL of the Cognitive Services resource

<https://learn.microsoft.com/en-us/azure/cognitive-services/containers/disconnected-containers>

Containers enable you to run Cognitive Services APIs in your own environment, and are great for your specific security and data governance requirements. Disconnected containers enable you to use several of these APIs disconnected from the internet.

<https://learn.microsoft.com/en-us/azure/cognitive-services/containers/disconnected-container-faq#how-do-i-download-the-disconnected-containers>

These containers are hosted on the Microsoft Container Registry and available for download on Microsoft Artifact Registry and Docker Hub. You won't be able to run the container if your Azure subscription has not been approved after completion of the request form.

Question: 55**CertyIQ****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. At the top, the URL is `https://management.azure.com/`. Below it, a dropdown menu lists several resource types: `subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12`, `subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad`, `tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12`, `tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad`, `Microsoft.ApiManagement`, `Microsoft.CognitiveServices`, `Microsoft.ContainerService`, and `Microsoft.KeyVault`. The option `Microsoft.CognitiveServices` is highlighted with a red box.

Answer:

Answer Area

The screenshot shows the Azure Management Portal interface. The URL is `https://management.azure.com/`. A dropdown menu lists several resource types: `subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12`, `subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad`, `tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12`, `tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad`, `Microsoft.ApiManagement`, `Microsoft.CognitiveServices`, `Microsoft.ContainerService`, and `Microsoft.KeyVault`. Both `subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad` and `Microsoft.CognitiveServices` are highlighted with red boxes.

Explanation:

1. `subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad`
2. `Microsoft.CognitiveServices`

<https://learn.microsoft.com/en-us/azure/cognitive-services/cognitive-services-apis-create-account?tabs=multiservice%2Canomaly-detector%2Clanguage-service%2Ccomputer-vision%2Cwindows#types-of-cognitive-services-resources>

You can access Azure Cognitive Services through two different resources: A multi-service resource, or a single-service one.

- Multi-service resource:

Access multiple Azure Cognitive Services with a single key and endpoint.

Consolidates billing from the services you use.

Question: 56

CertyIQ

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

Answer: B

Explanation:

The Eula, Billing, and ApiKey options must be specified to run the container; otherwise, the container won't start. For more information, see Billing. The ApiKey value is the Key from the Keys and Endpoints page in the LUIS portal and is also available on the Azure Cognitive Services resource keys page.

Example:

```
$ docker run --rm -it -p 5000:5000 --memory 4g --cpus 2 --mount  
type=bind,src=c:\demo\container,target=/input --mount type=bind,src=C:\demo\container,target=/output  
mcr.microsoft.com/azure-cognitive-services/luis Eula=accept  
Billing=https://westus.api.cognitive.microsoft.com/luis/v2.0 ApiKey= ___YOUR_API_KEY___
```

<https://learn.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-configuration#example-docker-run-commands>

Question: 57

CertyIQ

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.

Answer: BD

Explanation:

B. Configure a custom subdomain.

Configuring a custom subdomain involves setting up a custom domain for your Speech service instance, which can help in integrating with Azure AD and managing authentication effectively.

D. Create a private endpoint.

Creating a private endpoint allows your app to securely connect to the Speech service without exposing it to the public internet, maintaining network security and compliance.

Question: 58

CertyIQ

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.

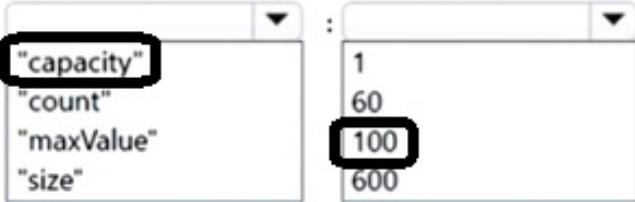
Answer Area

```
{  
    "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:

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",  
            ...  
        }  
    }  
}
```



Explanation:

"capacity" defines compute power and token limits, which is essential in deploying AI models.

100 likely means 100 tokens per second, a common performance metric for OpenAI models.

Question: 59

CertyIQ

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:****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

- Deploy a Docker container to an on-premises server.
- Provision the Language service resource in Azure.
- Run the container and query the prediction endpoint.

**Explanation:****1.Deploy a Docker container to an on-premises server.**

This is selected because the task requires deploying a Docker container locally rather than in an Azure-hosted environment.

If the requirement had been cloud deployment, the Azure Container Instance option would have been correct.

2.Provision the Language service resource in Azure.

Before using Language services, the required resource must first be provisioned in Azure.

This step ensures that necessary configurations, API keys, and endpoints are available.

3.Run the container and query the prediction endpoint.

Once the Docker container is deployed, it needs to be executed and connected to the prediction endpoint for processing language-related tasks.

This means the application will be able to send queries and receive responses from the Language service.

Question: 60**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:

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

Explanation:

1. Provide access to AI by using: **An API key**.

API keys are commonly used for authentication when interacting with Azure AI services, such as Azure OpenAI, Cognitive Services, and other AI models.

They allow secure access to the service without requiring user credentials or OAuth authentication.

2.Connect to the deployment by using: **A deployment endpoint.**

To interact with a deployed AI model, you need the deployment endpoint, which is a unique URL that serves the model for inference requests.

The endpoint is provided by Azure when deploying an AI model, allowing users to send API calls for predictions or data processing.

CertyIQ

Question: 61

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.

Answer: A

Explanation:

A. Run the Bot Framework Emulator.

The Bot Framework Emulator allows you to test and debug your bot locally, providing a convenient way to validate its functionality before deploying it or connecting it to other services.

CertyIQ

Question: 62

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

Answer: C

Explanation:

C. the deployment name, endpoint, and key.

To connect to an Azure OpenAI model using the Azure OpenAI SDK, you need to provide:
The deployment

name of the model that you want to use. This is the name that you assigned to the model when you deployed it. The endpoint of your Azure OpenAI resource. This is the URL that you can find in the Overview section of your resource in the Azure portal or by using the Azure CLI. The key of your Azure OpenAI resource. This is the API key that you can find in the Keys and Endpoint section of your resource in the Azure portal or by using the Azure CLI.

These pieces of information are necessary to authenticate and establish a connection between your web app and the Azure OpenAI model.

Question: 63

CertyIQ

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

Answer: D

Explanation:

D. virtual network rules.

Virtual network rules enable you to restrict access to your Azure Cognitive Service for Language from specific virtual networks. This helps you manage security efficiently while reducing administrative overhead.

Question: 64

CertyIQ

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

Answer: D

Explanation:

Azure AI Anomaly Detector is an AI service that enables you to monitor and detect anomalies in your time

series data with little machine learning knowledge, either batch validation or real-time inference.

Question: 65

CertyIQ

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:

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
```

Explanation:

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

This is the correct Docker container image for sentiment analysis.

It allows running Azure Cognitive Services' Text Analytics API for sentiment detection locally.

2.<https://contoso.cognitiveservices.azure.com>.

This is the billing endpoint, which links the container to an Azure Cognitive Services account.

It ensures the service is authorized and properly billed.

Question: 66

CertyIQ

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

Answer: B

Explanation:

Azure Stream Analytics is an easy-to-use, real-time analytics service that offers built-in machine learning based anomaly detection capabilities.

Question: 67

CertyIQ

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.

Answer: D

Explanation:

D. From OneDrive, create a sharing link for File1.avi, and then copy the link to the Azure AI Video Indexer website.

This method allows you to directly reference the video file stored in OneDrive without needing to download and re-upload it, making the process more efficient and less time-consuming.

Question: 68

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.

Answer: AE**Explanation:**

- A. In VNet1, enable a service endpoint for CSAccount1. This allows you to secure your Azure service resources to the virtual network.
- E. In CSAccount1, modify the virtual network settings. This will allow you to configure CSAccount1 to accept connections only from the virtual network VNet1.

Enabling service endpoints and modifying the virtual network settings for the AI Service resource will limit access to the resources within VNet1, effectively fulfilling both requirements.

Question: 69

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

Answer: A**Explanation:**

- A. speech-to-text in the Azure AI Speech service.

This service can transcribe the spoken words into text in real-time, which can then be analyzed to detect questions. It's an efficient way to monitor for specific verbal cues or keywords that indicate a question is being asked, without the need for extensive programming or manual review. This approach minimizes development effort while providing a robust solution for the requirement.

Question: 70

CertyIQ

You have an Azure DevOps pipeline named Pipeline1 that is used to deploy an app. Pipeline1 includes a step that will create an Azure AI services account.

You need to add a step to Pipeline1 that will identify the created Azure AI services account. The solution must minimize development effort.

Which Azure Command-Line Interface (CLI) command should you run?

- A.az resource link
- B.az cognitiveservices account network-rule
- C.az cognitiveservices account show
- D.az account list

Answer: C

Explanation:

Correct answer is C. az cognitiveservices account show. The az cognitiveservices account show command retrieves details about a specified Azure Cognitive Services account, including its properties and settings. By using this command in the Azure DevOps pipeline, you can identify and confirm the details of the Azure AI services account that was created in a previous step.

Question: 71

CertyIQ

HOTSPOT

-

You have 1,000 scanned images of hand-written survey responses. The surveys do NOT have a consistent layout.

You have an Azure subscription that contains an Azure AI Document Intelligence resource named Aldoc1.

You open Document Intelligence Studio and create a new project.

You need to extract data from the survey responses. The solution must minimize development effort.

To where should you upload the images, and which type of model should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Upload to:

- An Azure Cosmos DB account
- An Azure Files share
- An Azure Storage account

Model type:

- Custom neural
- Custom template
- Identity document (ID)

Answer:

Answer Area

Upload to:

- An Azure Cosmos DB account
- An Azure Files share
- An Azure Storage account

Model type:

- Custom neural
- Custom template
- Identity document (ID)

Explanation:

1. Upload to: **An Azure Storage Account.**

Azure Storage Account is the best option for storing custom AI models, images, datasets, and large files used for processing.

Other options like Cosmos DB (for structured NoSQL data) and Azure Files (for file sharing) are not optimized for storing AI training data and models.

2. Model Type: **Custom Neural.**

Custom Neural models use deep learning techniques to recognize complex patterns, which are often used in Azure Cognitive Services.

This option is ideal for image processing, text recognition, and speech synthesis.

Question: 72

CertyIQ

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:

Answer Area

Statements	Yes	No
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 checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box 1: No

The code does not perform face recognition because face recognition typically involves using a Face API or a specific facial detection model.

If the code was analyzing images for faces, it would use something like Azure Face API or OpenCV for face detection and recognition.

Without direct evidence of face recognition logic in the code, we conclude that it does not perform face recognition.

Box 2: Yes -

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

Box 3: Yes.

The code uses File.OpenRead(localImage) to open and read an image file from the local file system.

CertyIQ

Question: 73

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.

Answer: BD

Explanation:

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>

Question: 74

CertyIQ

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"  
  
areaOfInterest  
detect  
generateThumbnail  
  
-d "{\"url\":\"https://upload.litwareinc.org/litware/bicycle.jpg\"}"
```

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"  
  
areaOfInterest  
detect  
generateThumbnail  
  
-d "{\"url\":\"https://upload.litwareinc.org/litware/bicycle.jpg\"}"
```

Explanation:

<https://contoso1.cognitiveservices.azure.com>.

This is an Azure Cognitive Services API endpoint.

It is used for making requests to Azure's Computer Vision API.

The selection ensures that the request is routed correctly to Azure for processing.

generateThumbnail.

This function is part of Azure Computer Vision API and is used to generate a thumbnail of an image.

It allows specifying width, height, and smart cropping (?width=100&height=100&smartCropping=true).

westus.dev.cognitive.microsoft.com wouldn't be a correct Computer Vision endpoint if the resource name is contoso1.

Reference:

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

Question: 75

CertyIQ

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=`

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=`

Explanation:

1. people, keywords / search

The correct value is people,keywords, meaning people recognition and keyword extraction will be shown.

The correct value is search, allowing users to search within the indexed insights.

2. true / en-US

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/video-indexer-embed-widgets#cognitive-insights-widget>

- widgets

Allows you to control the insights that you want to render.

- controls

Allows you to control the controls that you want to render.

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/video-indexer-embed-widgets#player-widget>

- showCaptions

Makes the player load with the captions already enabled.

- captions

Fetches the caption in the specified language during the widget loading to be available on the Captions menu

Question: 76

CertyIQ

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



Answer:

Actions

- Change the model domain.
- Retrain the model.
- Test the model.
- Export the model.

Answer Area



- Change the model domain.
- Retrain the model.
- Export the model.

Explanation:

Change the Model Domain.

The model domain refers to the specific category or type of data the AI model is trained for (e.g., speech, text, vision, etc.).

If you want to modify the focus of the model, you must first change the domain before making further modifications.

This ensures that the model aligns with the correct industry use case and dataset.

Retrain the Model.

Once the domain has been changed, the model must be retrained with updated data.

Training is necessary to adapt the model to the new domain and improve its accuracy.

Without retraining, the model would not function correctly within the new domain.

Export the Model.

After retraining, the model is ready for deployment.

The export step allows the trained model to be saved and deployed to different environments.

This step is crucial if the model needs to be used in cloud applications, edge computing, or integrated with other services.

Question: 77

CertyIQ

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.HTTPSConnection('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.	<input type="radio"/>	<input type="radio"/>
	The code will work for up to 10,000 people.	<input type="radio"/>	<input type="radio"/>
	add_face can be called multiple times to add multiple face images to a person object.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

	Statements	Yes	No
	The code will add a face image to a person object in a person group.	<input checked="" type="radio"/>	<input type="radio"/>
	The code will work for up to 10,000 people.	<input checked="" type="radio"/>	<input type="radio"/>
	add_face can be called multiple times to add multiple face images to a person object.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

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

Yes: In the Face API, adding a face to a person object in a person group is a typical operation. You use the add_face method (or similar method depending on the SDK or API) to associate a face with a person object within a specific person group.

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

Yes: Azure Face API can typically support up to 10,000 people in a person group. This is a documented limit for the Face API's person groups, so the code can handle this number of people.

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

Yes: You can call the add_face method multiple times to associate multiple face images with a single person object. This helps improve the accuracy of face recognition by allowing the system to recognize the same person from different angles or lighting conditions.

Question: 78

CertyIQ

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

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.

Answer Area



Answer:

Actions

Use the ExportIteration endpoint on acvdev.

Use the GetIterations endpoint on acvdev.

Use the UpdateProject endpoint on acvprod.

Answer Area

Use the GetProjects endpoint on acvdev.

Use the ExportProject endpoint on acvdev.

Use the ImportProject endpoint on acvprod.



Explanation:

1. Use the GetProjects Endpoint on acvdev.

The GetProjects endpoint is used to list all projects in the development environment (acvdev).

This helps identify which projects are available and can be exported.

It ensures that the correct project is selected before proceeding.

2. Use the ExportProject Endpoint on acvdev.

Once the desired project is identified, the ExportProject endpoint is used to export the project from the development environment.

This generates an exportable package that can be transferred to another environment (e.g., production).

3. Use the ImportProject Endpoint on acvprod.

After exporting, the ImportProject endpoint is used to import the project into the production environment (acvprod).

This completes the process of moving the project from development to production.

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

Train the classifier model.

Upload and tag images.

Initialize the training dataset.

Train the object detection model.

Create a project.

Answer Area

Answer:

Actions

Initialize the training dataset.

Train the object detection model.

Answer Area

Create a project.

Upload and tag images.

Train the classifier model.

**Explanation:****Step 1: Create a Project.**

Before any model training can happen, a new project must be created in the system.

This project serves as the workspace where images, labels, and models are managed.

The project defines the task type, such as image classification or object detection.

Step 2: Upload and Tag Images.

Once the project is created, the training dataset must be initialized.

This step involves uploading images into the system and tagging (labeling) them with the appropriate classes.

Tags help the model learn to classify different objects in images.

Step 3: Train the Classifier Model.

After images are tagged, the next step is to train the classifier model.

This involves using machine learning algorithms to learn patterns in the tagged dataset.

The model is then tested and refined based on performance.

Question: 80

CertyIQ

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:

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)

Explanation:

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 (compact)

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

- Select Classification under Project Types. Then, under Classification Types, choose either Multilabel or

Multiclass, depending on your use case. Multilabel classification applies any number of your tags to an image (zero or more), while multiclass classification sorts images into single categories (every image you submit will be sorted into the most likely tag). You'll be able to change the classification type later if you want to.

Reference:

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

CertyIQ

Question: 81

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.

Answer: A

Explanation:

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>

CertyIQ

Question: 82

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)

Answer: AD

Explanation:

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

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

After training has completed, the model's performance is estimated and displayed. The Custom Vision Service uses the images that you submitted for training to calculate precision and recall. Precision and recall are two different measurements of the effectiveness of a classifier:

- Precision indicates the fraction of identified classifications that were correct. For example, if the model identified 100 images as dogs, and 99 of them were actually of dogs, then the precision would be 99%.
- Recall indicates the fraction of actual classifications that were correctly identified. For example, if there were actually 100 images of apples, and the model identified 80 as apples, the recall would be 80%.

Reference:

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

CertyIQ

Question: 83

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",  
  [redacted] : "employeefaces",  
  "maxNumOfCandidatesReturned": 1,  
  "mode": [redacted]  
}
```

Answer:

Values

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

Answer Area

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

Explanation:

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>

Question: 84

CertyIQ

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

detect
findsimilar
group
identify
matchFace
matchPerson
verify

Answer Area

POST {Endpoint}/face/v1.0/
Request Body

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

Answer:

Values

detect
findsimilar
group
identify
matchFace
matchPerson
verify

Answer Area

```
POST {Endpoint}/face/v1.0/ findsimilar  
Request Body  
  
{  
    "faceId": "c5c24a82-6845-4031-9d5d-978df9175426",  
    "largeFaceListId": "sample_list",  
    "maxNumOfCandidatesReturned": 10,  
    "mode": " matchPerson "  
}
```

Explanation:

Box 1: find similar.

The correct function for this API request is findsimilar.

This function is used to find similar faces within a given dataset.

It searches for matches in a predefined face list or face group.

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/find-similar>

Question: 85**CertyIQ**

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.	<input type="radio"/>	<input type="radio"/>
The code will return 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 return 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:

Statements	Yes	No
The code will return 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 return 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 return 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"/>

Explanation:

Box 1: Yes .

The Computer Vision API can detect brand logos in an image.

It returns the brand name only if its confidence level meets a specified threshold (e.g., 75% or higher).

Since the statement aligns with how the API works, it is correct.

Box 2: Yes .

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

Box 3: No .

X

Gets or sets the x-coordinate of the upper-left corner of this Rectangle structure.

Y

Gets or sets the y-coordinate of the upper-left corner of this Rectangle structure.

<https://docs.microsoft.com/en-us/dotnet/api/system.drawing.rectangle?view=net-5.0>

Reference:

Question: 86

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/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

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 (File t = File.OpenRead(imagePath))
        {
            await faceClient.PersonGroupPerson.
                AddFaceFromStreamAsync
                (personGroupId, personId, t);
        }
    }
});
```

Explanation:

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: AddFaceFromStreamAsync.

Calls the AddFaceFromStreamAsync method.

Reference:

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

Question: 87

CertyIQ

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.

Answer: D

Explanation:

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	detection_02	detection_03
Default choice for all face detection operations.	Released in May 2019 and available optionally in all face detection operations.	Released in February 2021 and available optionally in all face detection operations.
Not optimized for small, side-view, or blurry faces.	Improved accuracy on small, side-view, and blurry faces.	Further improved accuracy, including on smaller faces (64x64 pixels) and rotated face orientations.
Returns main face attributes (head pose, age, emotion, and so on) if they're specified in the detect call.	Does not return face attributes.	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.	Does not return face landmarks.	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>

Question: 88

CertyIQ

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")

Answer: A

Explanation:

<https://learn.microsoft.com/en-us/azure/cognitive-services/cognitive-services-apis-create-account-client>

To create and subscribe to a new Cognitive Services resource, use the Create function. This function adds a new billable resource to the resource group you pass in. When you create your new resource, you'll need to know the "kind" of service you want to use, along with its pricing tier (or SKU) and an Azure location. The following function takes all of these arguments and creates a resource.

Question: 89**CertyIQ**

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.

Answer: BD**Explanation:**

- B. Add code to verify the read_results.status value.
- D. Wrap the call to get_read_result within a loop that contains a delay.

In order to prevent the GetReadResultAsync method from proceeding until the read operation is complete, we need to check the status of the read operation and wait until it's completed. To do this, we can add code to verify the status of the read_results.status value. If the status is not "succeeded", we can add a delay and then retry the operation until it's complete. This can be achieved by wrapping the call to get_read_result within a loop that contains a delay.

Removing the operation_id parameter or adding code to verify the status of the read_operation_location value will not solve the issue of waiting for the read operation to complete before proceeding with the GetReadResultAsync method.

Question: 90**CertyIQ****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

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

Explanation:

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

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

<https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-describing-images>

Computer Vision can analyze an image and generate a human-readable phrase that describes its contents.

The algorithm returns several descriptions based on different visual features, and each description is given a confidence score. The final output is a list of descriptions ordered from highest to lowest confidence.

Question: 91

CertyIQ

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.

Answer: B

Explanation:

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>

Question: 92

CertyIQ

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

Answer: B

Explanation:

To ensure that queries can be performed on the contents of the letters, the skill that should be included in the indexer is optical character recognition (OCR).Option B, optical character recognition (OCR), is a technology that can recognize text within an image and convert it into machine-readable text. This skill will enable the search engine to read the handwritten letters and convert them into searchable text that can be indexed by Azure Cognitive Search.Option A, image analysis, is a useful skill for analyzing images to extract metadata, but it does not directly enable text recognition.Option C, key phrase extraction, extracts important phrases and concepts from text, but it requires the text to be already recognized and extracted by OCR or other text extraction techniques.Option D, document extraction, is a skill that extracts specific pieces of information from documents, but it does not address the challenge of recognizing and extracting text from handwritten letters.

Question: 93

CertyIQ

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:

Computer Vision analyze images
Computer Vision object detection
Custom Vision image classification
Custom Vision object detection

Property:

categories
description
imageType
metadata
objects

Answer:

Answer Area

Service endpoint:

Computer Vision analyze images
Computer Vision object detection
Custom Vision image classification
Custom Vision object detection

Property:

categories
description
imageType
metadata
objects

Explanation:

1 - Computer Vision analyze images.

The "Computer Vision analyze images" endpoint is used to extract insights from an image, such as:

Categories

Descriptions

Image type

Metadata

Objects

2 image Type.

The "imageType" property identifies the type of an image, such as:

Whether it's a clip art or line drawing.

Whether it contains adult content.

<https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-detecting-image-types>

Computer Vision can analyze the content type of images, indicating whether an image is clip art or a line drawing

CertyIQ

Question: 94

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.

Answer: B

Explanation:

<https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/how-to/use-headpose#detect-head-gestures>

You can detect head gestures like nodding and head shaking by tracking HeadPose changes in real time. You can use this feature as a custom liveness detector.

Liveness detection is the task of determining that a subject is a real person and not an image or video representation. A head gesture detector could serve as one way to help verify liveness, especially as opposed to an image representation of a person.

CertyIQ

Question: 95

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.

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

detects
finds similar
recognizes
verifies

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

Answer:

Answer Area

The API [answer choice] faces.

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

detects
finds similar
recognizes
verifies

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

Explanation:

The API detects faces.

A face that can be used in person enrollment is at position 797, 201 within the photo.

This question provides information about an API request made to a face detection service. The request is sent to the endpoint "<https://facetesting.cognitiveservices.azure.com/face/v1.0/detect>" with the content of an image in the JSON format. The response from the API includes an array of detected faces, each with a unique facelid, faceRectangle, and faceAttributes.

The first statement asks what the API does with faces. The correct answer is "detects" because the endpoint used in the request is "/detect," which implies that the API is used for face detection.

The second statement asks about the position of a face that can be used for person enrollment. The face's position is specified in the "faceRectangle" field of the JSON response. The correct answer is "118, 754" because that is the "left" and "top" position of the face rectangle for the fourth face in the response, which has a high enough quality for recognition to be used in person enrollment.

Question: 96

CertyIQ

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.

Answer: A

Explanation:

From the Azure portal, configure parallel indexing.

<https://learn.microsoft.com/en-us/azure/search/search-howto-large-index#run-indexers-in-parallel>

If you partition your data, you can create multiple indexer-data-source combinations that pull from each data source and write to the same search index. Because each indexer is distinct, you can run them at the same time, populating a search index more quickly than if you ran them sequentially.

Question: 97

CertyIQ

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:

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

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

**Explanation:****1. Sign in to the Azure Video Analyzer for Media website.**

This is the first step to access the Azure Video Analyzer for Media platform, where customization options are available.

This service is used for analyzing video content, including detecting brands, objects, and speech-to-text.

2. From Content model customization, select Brands.

After signing in, users need to customize content models.

The "Brands" option allows users to train the system to recognize specific company names or logos.

3. Add the specific company names to the include list.

After selecting "Brands", users must define which company names (brands) should be detected and recognized.

The "include list" ensures that specific brands are identified and not ignored during video analysis.

Question: 98**CertyIQ**

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

Answer: A**Explanation:**

- A. raw image binary

<https://westus.dev.cognitive.microsoft.com/docs/services/form-recognizer-api-v2-1/operations/AnalyzeReceiptAsync>

Request body: Document containing the receipt image(s) to be analyzed. The POST body should be the raw

image binary, or the image URL in JSON.

<https://ittichaicham.com/2020/03/call-azure-form-recognizer-api-on-sharepoint-document-image-url-in-power-automate/>

Power Automate (formerly Microsoft Flow) can call Azure Form Recognizer via the connector. Since Power Automate is a cloud solution, the natural choice is to use the image URL. This should work fine if the URL is accessible to the public or requires no authentication. Unfortunately, the company's SharePoint URL, most of the time, is not.

To solve this, we can add another flow step to move the SharePoint file to where it is accessible, or, better, instead of using file URL, we can pass binary content in the Form Recognizer API.

Question: 99

CertyIQ

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

Answer: C

Explanation:

Computer Vision Image Analysis provides a comprehensive set of features for analyzing images, including generating tags. It supports multiple languages, including English, French, and Spanish, which meets the requirement of generating tags in a user's preferred language. Additionally, it minimizes development effort by offering a ready-to-use endpoint for image analysis and tagging.

Question: 100

CertyIQ

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:

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"/>

Explanation:

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

YES

Correctly selected because brand recognition APIs typically return:

The brand name detected.

A confidence score indicating the likelihood that the detected brand is correct.

A confidence threshold (e.g., $\geq 75\%$) is often used to filter results.

This matches the expected behavior of a brand detection model.

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

YES.

Correctly selected because brand detection models often return:

Bounding box coordinates (x, y, width, height).

The top-left corner (x, y) is explicitly part of the bounding box.

This allows positioning and visualizing detected brands on an image.

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

No.

Correctly marked as NO because:

Most vision APIs provide the top-left coordinates and dimensions (width, height).

The bottom-right corner is not explicitly returned but can be derived using:

Bottom-right X = Top-left X + Width

Bottom-right Y = Top-left Y + Height

Question: 101

CertyIQ

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

Food

General

General (compact)

Image classification

Logo

Object detection

Answer Area

Project type:

Domain:

Answer:

Answer Area

Project type: Object detection

Domain: General (compact)

Explanation:

1. Project Type: **Object Detection**.

The project type chosen is Object detection, which means:

The model will identify and locate objects within an image.

Instead of just classifying an image into categories, it draws bounding boxes around detected objects.

This is useful for tasks such as detecting products in a store, identifying machinery parts, or recognizing multiple objects in a single image.

2. Domain: **General (Compact)**.

"General (compact)" is a domain type in Custom Vision, meaning:

It is a lightweight model optimized for use on edge devices (e.g., mobile phones, IoT devices, or embedded

systems).

"Compact" models can be exported and used in applications running offline without requiring cloud connectivity.

The "General" domain suggests the model is not specialized for a specific category (like retail, landmarks, or food) but works across a wide range of object detection tasks.

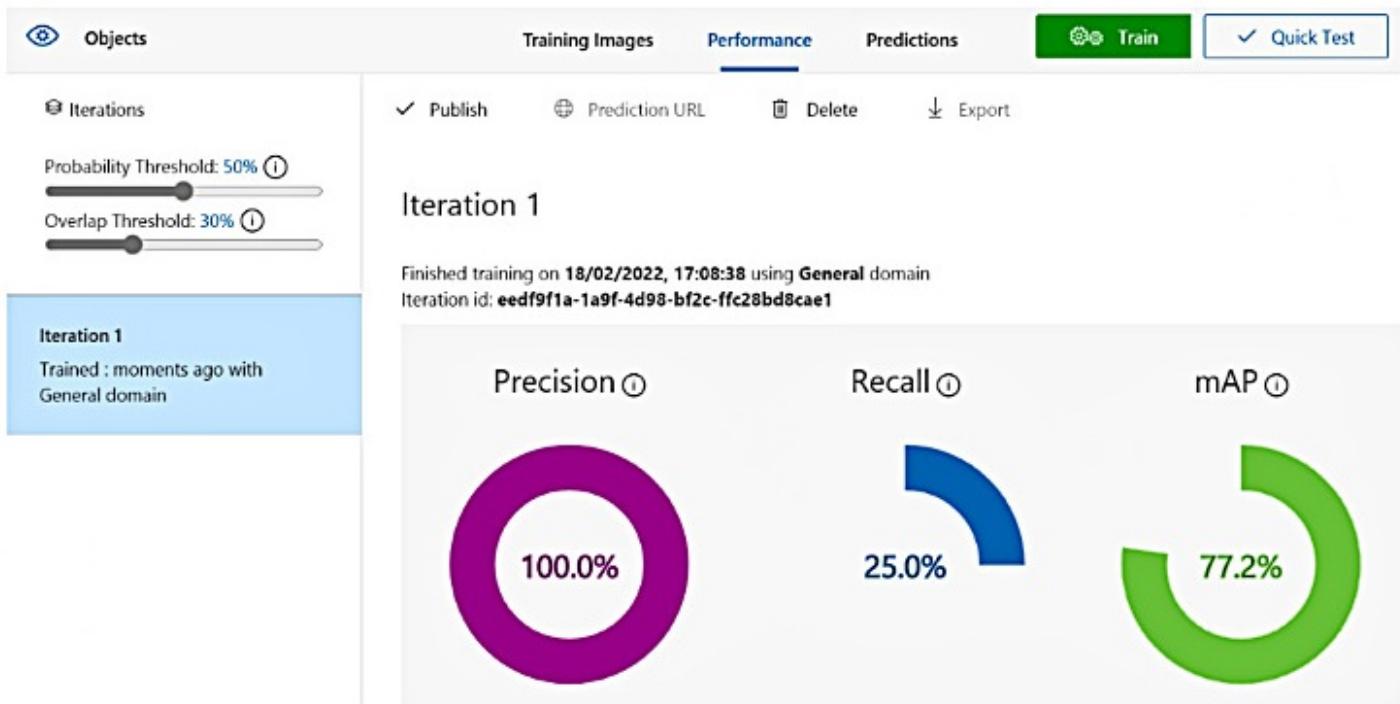
Question: 102

CertyIQ

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].

0253050100

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

0253050100

Answer:**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

Explanation:

1. 0

2. 25

<https://learn.microsoft.com/en-us/azure/cognitive-services/language-service/custom-text-classification/concepts/evaluation-metrics>

- Precision: Measures how precise/accurate your model is. It's the ratio between the correctly identified positives (true positives) and all identified positives. The precision metric reveals how many of the predicted classes are correctly labeled.

Precision = #True_Positive / (#True_Positive + #False_Positive)

- Recall: Measures the model's ability to predict actual positive classes. It's the ratio between the predicted true positives and what was actually tagged. The recall metric reveals how many of the predicted classes are correct.

Recall = #True_Positive / (#True_Positive + #False_Negatives)

<https://learn.microsoft.com/en-us/azure/cognitive-services/Custom-Vision-Service/get-started-build-detector>

Question: 103**CertyIQ**

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

Answer: B**Explanation:**

Its B 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.<https://learn.microsoft.com/en-us/rest/api/computervision/3.2preview2/read/read?tabs=HTTP>

Question: 104

CertyIQ

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.

Answer: C

Explanation:

Uploading Guidelines: Uploading files to Video Indexer
Uploading a local file from your device
Supported file formats include: .wmv, .avi, .mov. The file should be up to 2GB and up to 4 hours. You can upload up to 10 files at a time.
Uploading an online file
The URL should lead to an online media file (for example a OneDrive file), not a webpage (like www.youtube.com). The file should be up to 30GB and up to 4 hours. You can upload up to 10 files at a time.

When uploading videos consider using a URL over byte array.

Azure AI Video Indexer does give you the choice to upload videos from URL or directly by sending the file as a byte array, the latter comes with some constraints. For more information, see [uploading considerations and limitations](#)

First, it has file size limitations. The size of the byte array file is limited to 2 GB compared to the 30-GB upload size limitation while using URL.

<https://learn.microsoft.com/it-it/azure/azure-video-indexer/considerations-when-use-at-scale>

Question: 105

CertyIQ

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:

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

Explanation:

Azure AI Computer Vision.

Content Moderator.

CertyIQ

Question: 106

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

Answer: CD

Explanation:

C.image descriptions in Azure AI Computer Vision.

D.image type detection in Azure AI Computer Vision.

CertyIQ

Question: 107

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

Answer: B

Explanation:

Correct answer is B:TXT.

Question: 108

CertyIQ

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



Answer:

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

- From the Custom Vision portal, open the project.
- Upload sample images of the new products.
- Label the sample images.
- Retrain the model.
- Publish the model.

Explanation:

From the Custom Vision Portal, Open the Project.

Upload Sample images of the new products.

Label the Sample images.

Retrain the model.

Publish the model.

Question: 109

CertyIQ

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:

Answer Area

Statements	Yes	No
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 an image file from the local file system.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

No

Yes

Yes

Question: 110

CertyIQ

You are developing a method that uses the Azure AI 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 get_read_result method occurs before the read operation is complete.

You need to prevent the get_read_result 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.

Answer: BD

Explanation:

- B.Add code to verify the read_results.status value.
- D.Wrap the call to get_read_result within a loop that contains a delay.

Question: 111

CertyIQ

HOTSPOT

-

You are developing an app that will use the Azure AI Vision API to analyze an image.

You need to configure the request that will be used by the app to identify whether an image is clipart or a line drawing.

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

GET
PATCH
POST

"https://*.cognitiveservices.azure.com/vision/v3.2/analyze?visualFeatures=&details={string}&language=e"

description
imageType
objects
tags

Answer:

Answer Area

GET
PATCH
POST

"https://*.cognitiveservices.azure.com/vision/v3.2/analyze?visualFeatures=&details={string}&language=e"

description
imageType
objects
tags

Question: 112

CertyIQ

HOTSPOT

-

You have an Azure subscription that contains an Azure AI Video Indexer account.

You need to add a custom brand and logo to the indexer and configure an exclusion for the custom brand.

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

NOTE: Each correct selection is worth one point.

```
{  
    "referenceUrl": "https://www.contoso.com/Contoso",  
    "id": 97974,  
    "name": "Contoso",  
    "accountId": "ContosoAccountId",  
    "lastModifierUserName": "SampleUserName",  
    "created": "2023-04-25T14:59:52.7433333",  
    "lastModified": "2023-04-25T14:59:52.7433333",
```

"enabled":	▼
"state":	▼
"tags":	▼
"useBuiltIn":	▼

["Excluded"]	▼
["Included"]	▼
false	▼
true	▼

Answer:

```
{
    "referenceUrl": "https://www.contoso.com/Contoso",
    "id": 97974,
    "name": "Contoso",
    "accountId": "ContosoAccountId",
    "lastModifierUserName": "SampleUserName",
    "created": "2023-04-25T14:59:52.7433333",
    "lastModified": "2023-04-25T14:59:52.7433333",
}
```

"enabled":	["Excluded"]
"state":	["Included"]
"tags":	false
"useBuiltIn":	true

Question: 113

CertyIQ

You have a local folder that contains the files shown in the following table.

Name	Format	Length (mins)	Size (MB)
File1	WMV	34	400
File2	AVI	90	1,200
File3	MOV	300	980
File4	MP4	80	1,800

You need to analyze the files by using Azure AI Video Indexer.

Which files can you upload to the Video Indexer website?

- A.File1 and File3 only
- B.File1, File2, File3 and File4
- C.File1, File2, and File3 only
- D.File1 and File2 only
- E.File1, File2, and File4 only

Answer: B

Explanation:

File1, File2, File3 and File4.

Question: 114**CertyIQ**

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

Answer: A**Explanation:**

Adding a new pattern to existing findContact() intent will help

Using a pattern could be a good solution IMHO...

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

Like

Where is FormName [?]

Who authored FormName [?]

FormName is published in French[?]

(taken from <https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-patterns>)

we could do:

- ⇒ Find contacts in CityOrCountry .
- ⇒ Who do I know in CityOrCountry [?]
- ⇒ Search for contacts in CityOrCountry [?].

So, it's (A)

Question: 115**CertyIQ**

Note: This question is part of a series of questions that present the same scenario. Each question in the series

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

Answer: B

Explanation:

The model needs 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.

Question: 116

CertyIQ

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

Answer: A

Explanation:

The model needs to be extended and retrained.

Question: 117

CertyIQ

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

Answer: B**Explanation:**

The model needs to be extended and retrained.

The answer is B is because the limitations of the smart labeler: You should only request suggested tags for images whose tags have already been trained on once. Don't get suggestions for a new tag that you're just beginning to train. You are given new images of species that have not been seen by the model how can you expect it to suggest what they are? Also you can train the model right in the smart labeler: check the workflow and the limitations in the doc. <https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/suggested-tags>

Question: 118**CertyIQ**

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
        SpeakerRecognizer
        SpeechSynthesizer
        TranslationRecognizer
    } (config, audioConfig);

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

Answer:

Answer Area

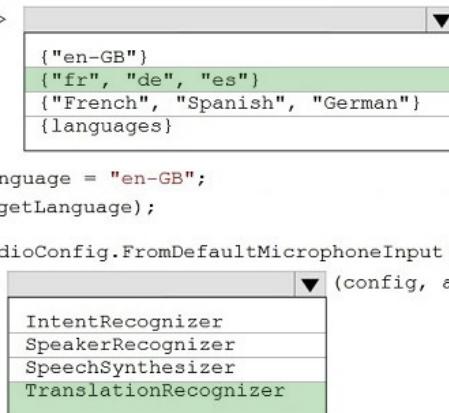
```
static async Task TranslateSpeechAsync()
{
    var config = SpeechTranslationConfig.FromSubscription("69cad5cc-0ab3-4704-bdff-afbf4aa07d85", "uksouth");

    var lang = new List<string>
    {
        {"en-GB"}
        {"fr", "de", "es"}
        {"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)
```



Explanation:

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: 119

CertyIQ

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

Upload the images by category.

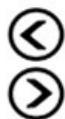
Get suggested tags.

Upload all the images.

Group the images locally into category folders.

Review the suggestions and confirm the tags.

Tag the images manually.

Answer Area**Answer:**

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.

Answer Area

Upload all the images.

Get suggested tags.

Review the suggestions and confirm the tags.

Explanation:

- 1.) upload all the images.
- 2.) Get suggested tags.
- 3.) Review the suggestions and confirm the tags.

Question: 120**CertyIQ**

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

Answer: A**Explanation:**

Machine learned entity uses context to extract entities based on labeled examples. It is the preferred entity

for building LUIS applications. It relies on machine-learning algorithms and requires labeling to be tailored to your application successfully. Use an ML entity to identify data that isn't always well formatted but have the same meaning.

An ML entity can be composed of smaller sub-entities, each of which can have its own properties. For example, an Address entity could have the following structure:

Address: 4567 Main Street, NY, 98052, USA

Building Number: 4567

Street Name: Main Street

State: NY

Zip Code: 98052

Country: USA

Reference:

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

Question: 121

CertyIQ

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.

Answer: BD

Explanation:

A. Create a list of FileDTO objects that represents data from the WebJob.

NO - as it is from URL - so optional

B. Call the client.Knowledgebase.CreateAsync method.

YES - Mandatory to Call the Method

C. Create a list of QnADTO objects that represents data from the WebJob.

NO - as it is from URL - so optional

D. Create a CreateKbDTO object.

YES - Mandatory to Create

Question: 122

CertyIQ

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"
    "https://api.cognitive.microsofttranslator.com/transliterate"
    "https://api-apc.cognitive.microsofttranslator.com/detect"
    "https://api-nam.cognitive.microsofttranslator.com/detect"
    "https://api-nam.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);
. . .
```

Answer:

Answer Area

```
...  
var endpoint =  
    "https://api.cognitive.microsofttranslator.com/translate"  
    "https://api.cognitive.microsofttranslator.com/transliterate"  
    "https://api-apc.cognitive.microsofttranslator.com/detect"  
    "https://api-nam.cognitive.microsofttranslator.com/detect"  
    "https://api-nam.cognitive.microsofttranslator.com/translate"  
  
var apiKey = "FF956C68883B21B38691ABD200A4C606";  
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);  
...  
...
```

Explanation:

Box 1: "https://api-nam.cognitive.microsofttranslator.com/translate.

Box 2:"?to=en";

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

Question: 123

CertyIQ

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.

Answer: C

Explanation:

C is the correct answer.

"To enable active learning, you must log user queries. This is accomplished by calling the endpoint query with the log=true query string parameter and value."

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/LUIS/how-to/improve-application#log-user-queries-to-enable-active-learning>

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-how-to-review-endpoint-utterances#log->

Question: 124

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.

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.	<input type="radio"/>	<input type="radio"/>
The container logging provider will write log data.	<input type="radio"/>	<input type="radio"/>
Going to http://localhost:5000/swagger will provide the details to access the documentation for the available endpoints.	<input type="radio"/>	<input type="radio"/>

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.	<input type="radio"/>	<input checked="" type="radio"/>
The container logging provider will write log data.	<input type="radio"/>	<input checked="" type="radio"/>
Going to http://localhost:5000/swagger will provide the details to access the documentation for the available endpoints.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box 1: No.

"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." - so #No# endpoint querying

Box 2: No

If you run the container with an output mount and logging enabled, the container generates log files for example

```
docker run --rm -it -p 5000:5000 \
--memory 2g --cpus 1 \
--mount type=bind,src=/home/azureuser/output,target=/output \
<registry-location>/<image-name> \
Eula=accept \
Billing=<endpoint> \
ApiKey=<api-key> \
Logging:Disk:Format=json \
Mounts:Output=/output
```

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.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-howto?tabs=v3#validate-that-a-container-is-running>

<https://docs.microsoft.com/en-us/azure/cognitive-services/language-service/sentiment-opinion-mining/how-to/use-containers#troubleshooting>

Question: 125

CertyIQ

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

Answer: A

Explanation:

An ML entity can be composed of smaller sub-entities, each of which can have its own properties. For example, Address could have the following structure:

Address: 4567 Main Street, NY, 98052, USA

Building Number: 4567

Street Name: Main Street

State: NY

Zip Code: 98052

Country: USA

CertyIQ

Question: 126

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.

Answer: B

Explanation:

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-t>

Question: 127

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

Answer: CDF**Explanation:**

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>

Question: 128

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

Answer: CE**Explanation:**

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>

Question: 129

CertyIQ

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.

Answer:

Actions

Answer Area

Add a new question and answer (QnA) pair.

Add alternative phrasing to the question and answer (QnA) pair.

Retrain the model.

Retrain the model.

Add additional questions to the document.

Republish the model.

Republish the model.

Add alternative phrasing to the question and answer (QnA) pair.

Explanation:

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>

Question: 130

CertyIQ

You need to measure the public perception of your brand on social media by using natural language processing. Which Azure service should you use?

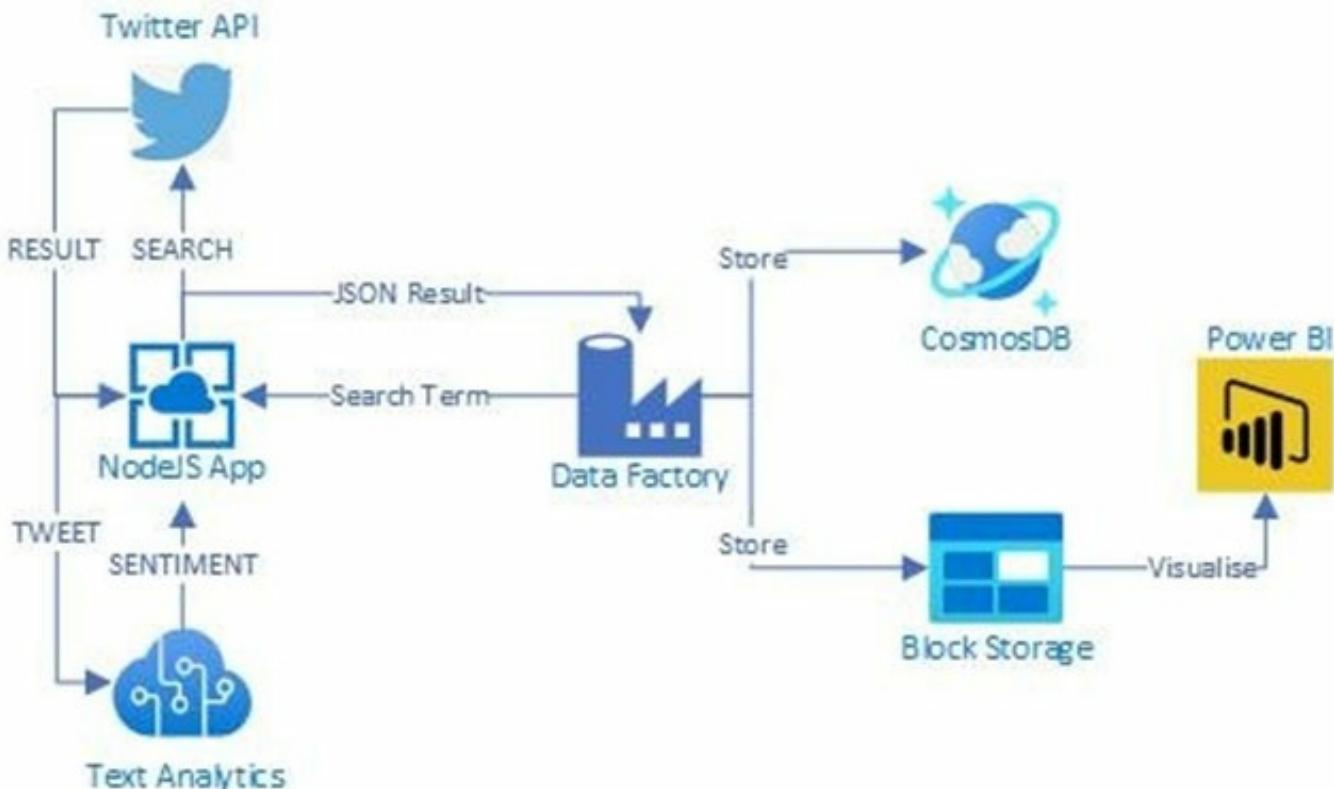
- A. Text Analytics
- B. Content Moderator
- C. Computer Vision
- D. Form Recognizer

Answer: A

Explanation:

Text Analytics Cognitive Service could be used to quickly determine the public perception for a specific topic, event or brand.

Example: A NodeJS app which pulls Tweets from Twitter using the Twitter API based on a specified search term. Then pass these onto Text Analytics for sentiment scoring before storing the data and building a visualisation in PowerBI. The Architecture looked something like this:



Reference:

Question: 131

CertyIQ

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

Answer: B

Explanation:

Needs Entity/type for location instead.

Question: 132

CertyIQ

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

Answer: A

Explanation:

A is the answer.

We create a new location entity for domain to keep the location of FindContact intent.

Create entities to extract key data from user utterances in Language Understanding (LUIS) apps. Extracted entity data is used by your client application to fulfill customer requests.

The entity represents a word or phrase inside the utterance that you want extracted. Entities describe information relevant to the intent, and sometimes they are essential for your app to perform its task.

Question: 133

CertyIQ

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.

Answer: D

Explanation:

The None intent is also treated like any other intent in your project. If there are utterances that you want predicted as None, consider adding similar examples to them in your training data. For example, if you would like to categorize utterances that are not important to your project as None, such as greetings, yes and no answers, responses to questions such as providing a number, then add those utterances to your intent.

You should also consider adding false positive examples to the None intent. For example, in a flight booking project it is likely that the utterance "I want to buy a book" could be confused with a Book Flight intent. Adding "I want to buy a book" or "I love reading books" as None training utterances helps alter the predictions of those types of utterances towards the None intent instead of Book Flight.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/language-service/conversational-language-understanding/concepts/none-intent#adding-examples-to-the-none-intent>

Question: 134

CertyIQ

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 [[\[email protected\]](mailto:)]

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:

Answer:

Entity Types

- Email
- List
- Regex
- GeographyV2
- Machine learned

Answer Area

Paris:

email@domain.com:

2 audit business:

Explanation:

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>

CertyIQ**Question: 135**

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")

Answer: B**Explanation:**

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>

CertyIQ**Question: 136**

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

Answer: A

Explanation:

- A. by month

Question: 137

CertyIQ

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

Answer: B

Explanation:

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>

Question: 138

CertyIQ

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.

Answer:

See explanation below.

Explanation:

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.

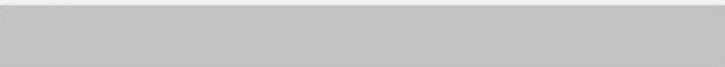
Step 7: Now select the Azure directory, Azure subscription, and Language Understanding resource name (French).

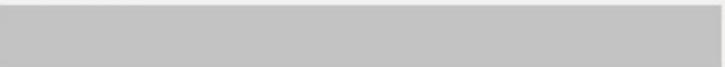
Step 8: Select Next on the bottom. Your Key and Region will appear on the next on the next window, shown below:

Select Language Understanding resources

X

The following Language Understanding keys have been successfully added to your bot project:

Key


Region


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>

Question: 139

CertyIQ

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.

Answer:

See explanation below.

Explanation:

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



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



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>

Question: 140

CertyIQ

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

Answer: A

Explanation:

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>

Question: 141

CertyIQ

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

Answer: A

Explanation:

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>

Question: 142

CertyIQ

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 = httplib.HTTPSConnection
        ("api.cogninve.microsofttranslator.com")
        ("api-apc.cognitive.microsofttranslator.com")
        ("api-nam.cognitive.microsofttranslator.com") ▾

    conn.request("POST",
        str(body), headers)
        "/translate?fr=nn=en"
        "/translate?suggestedFrom=en"
        "/translate?to=en"
        "/detect?to=en"
        "/detect?from=en" ▾

    response = conn.getresponse()
    response_data = response.read()
    . . .
```

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",
        str(body), headers)
        "/translate?fr=nn=en"
        "/translate?suggestedFrom=en"
        "/translate?to=en" ▾
        "/detect?to=en"
        "/detect?from=en" ▾

    response = conn.getresponse()
    response_data = response.read()
    . . .
```

Explanation:

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

1.api-nam.cognitive.microsofttranslator.com

2. /translate?to=en

<https://learn.microsoft.com/en-us/azure/cognitive-services/Translator/reference/v3-0-reference#base-urls>

Requests to Translator are, in most cases, handled by the datacenter that is closest to where the request originated. If there's a datacenter failure when using the global endpoint, the request may be routed outside of the geography.

To force the request to be handled within a specific geography, use the desired geographical endpoint. All requests are processed among the datacenters within the geography.

- United States

api-nam.cognitive.microsofttranslator.com

<https://learn.microsoft.com/en-us/azure/cognitive-services/translator/reference/rest-api-guide>

- translate

Translate specified source language text into the target language text.

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>

CertyIQ

Question: 143

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.

Answer: C

Explanation:

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>

Question: 144

CertyIQ

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: -

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/>.

Answer:

See explanation below.

Explanation:

 = admin@abc.com

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 'DASHBOARD', 'BUILD' (which is selected), 'MANAGE', 'Train' (red dot), 'Test', and 'Publish'. On the left, a sidebar titled 'Scheduling (v 0.1) ~' lists 'App Assets' (Intents, Entities) and 'Improve app performance' (Review endpoint utterances, Phrase lists, Patterns). The main area is titled 'Schedule appointment' with a red border. It contains a text input field with placeholder 'Type about 5 examples of what a user might say and hit Enter'. Below it is a table with columns 'Utterance' and 'Labeled intent'. Five utterances are listed: '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 ?'. Each utterance has a 'Schedule ap...' labeled intent and three-dot menu options. Below this is a section titled 'Entities used in this intent' with a table for 'Name' and 'Labeled utterances'. A note says 'There are no entities in use.' At the bottom left, there's a 'PREVIEW' button and a 'Prebuilt Domains' link.

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: 145

CertyIQ

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: -

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/>.

Answer:

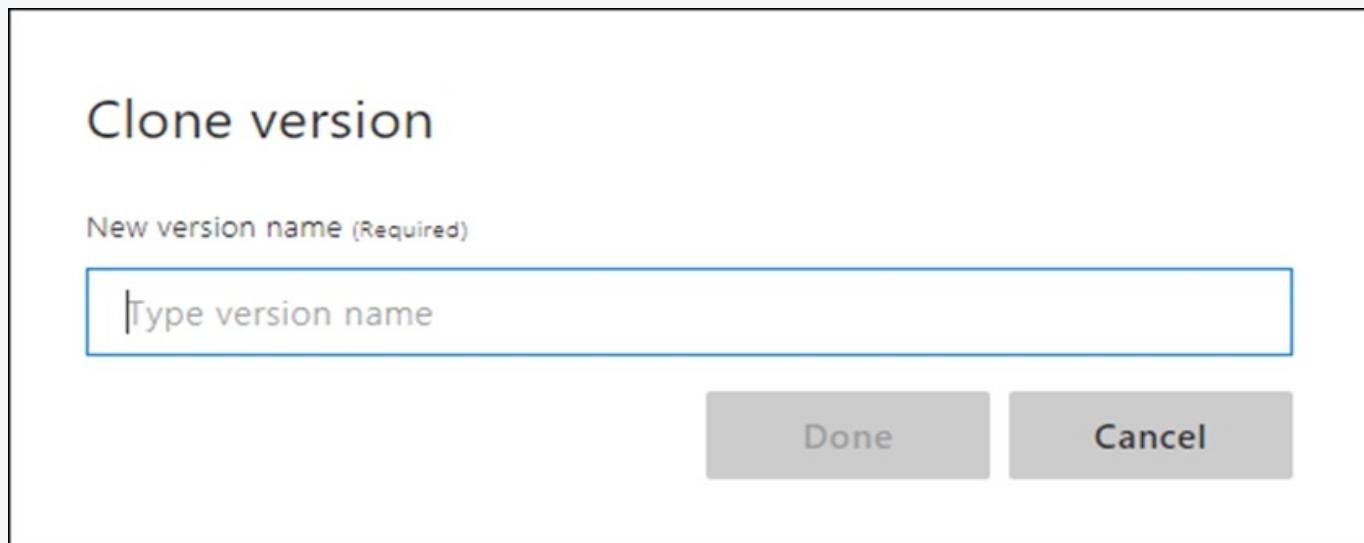
See explanation below.

Explanation:

 = admin@abc.com

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>

Question: 146

CertyIQ

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

Answer: C

Explanation:

C is the answer.

<https://learn.microsoft.com/en-us/dotnet/api/overview/azure/ai.language.conversations-readme?view=azure-dotnet>

Conversational Language Understanding - aka CLU for short - is a cloud-based conversational AI service which provides many language understanding capabilities like:

- Conversation App: It's used in extracting intents and entities in conversations

Start by importing the namespace for the ConversationAnalysisClient and related class:

- using Azure.AI.Language.Conversations;

Question: 147

CertyIQ

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:

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

Explanation:

1. Speech Studio portal
2. Text-to-speech

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/custom-neural-voice#how-does-it-work>

To create a custom neural voice, use Speech Studio to upload the recorded audio and corresponding scripts, train the model, and deploy the voice to a custom endpoint.

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/text-to-speech>

Text to speech enables your applications, tools, or devices to convert text into humanlike synthesized speech. The text to speech capability is also known as speech synthesis. Use humanlike prebuilt neural voices out of the box, or create a custom neural voice that's unique to your product or brand.

Question: 148

CertyIQ

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:

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

Explanation:

1. Speech-to-text

2. Text-to-speech and Translator

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/speech-to-text>

With real-time speech to text, the audio is transcribed as speech is recognized from a microphone or file.

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/text-to-speech>

Text to speech enables your applications, tools, or devices to convert text into humanlike synthesized speech. The text to speech capability is also known as speech synthesis. Use humanlike prebuilt neural voices out of the box, or create a custom neural voice that's unique to your product or brand.

Question: 149

CertyIQ

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>

Answer: C

Explanation:

The correct answer is C

The question is about providing users with all the available voice options.

Get a list of voices

You can use the tts.speech.microsoft.com/cognitiveservices/voices/list endpoint to get a full list of voices for a specific region or endpoint.

Reference : <https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/rest-text-to-speech?tabs=streaming>

Question: 150

CertyIQ

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.

Answer: A**Explanation:**

To configure the project to engage in multi-turn conversations, you should add follow-up prompts. Follow-up prompts are a way to ask additional questions or provide more information to help the user clarify their intent. By adding follow-up prompts, the chatbot can engage in a back-and-forth conversation with the user to gather additional information and ultimately provide a better answer.

Therefore, the correct answer is A. Add follow-up prompts.

CertyIQ**Question: 151****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:**Answer Area**

Statements	Yes	No
The code will detect the language of documents.	<input checked="" type="radio"/>	<input type="radio"/>
The url attribute returned for each linked entity will be a Bing search link.	<input type="radio"/>	<input checked="" 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"/>

Explanation:

Y, N, Y

<https://learn.microsoft.com/en-us/dotnet/api/azure.ai.textanalytics.textanalyticsclient.recognizelinkedentities?view=azure-dotnet>

Y – language String

The language that the document is written in. If unspecified, this value will be set to the default language in DefaultLanguage in the request sent to the service.

Default language value to use in all client calls. If no value is specified, "en" is set as default.

<https://learn.microsoft.com/en-us/rest/api/cognitiveservices-textanalytics/3.0/entities-linking/entities-linking?tabs=HTTP#linkedentity>

N – LinkedEntity dataSource string

Data source used to extract entity linking, such as Wiki/Bing etc.

<https://learn.microsoft.com/en-us/rest/api/cognitiveservices-textanalytics/3.0/entities-linking/entities-linking?tabs=HTTP#match>

Y – Match offset integer

Start position (in Unicode characters) for the entity match text.

Question: 152**CertyIQ**

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.

Answer: AC

Explanation:

Active Learning cannot be initiated prior to the deployment of the model. The primary purpose of the 'Active Learning' feature is to leverage actual user interaction data to enhance the model's understanding capabilities. This is a continuous learning and optimization process that takes place after the model has been deployed and put into actual use.so the answer is AC.

Question: 153

CertyIQ

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");
```

Answer:

Values
addTargetLanguage
speechSynthesisLanguage
speechRecognitionLanguage
voiceName

Answer Area

```
var translationConfig = SpeechTranslationConfig.FromSubscription(SPEECH__SUBSCRIPTION__KEY, SPEECH__SERVICE__REGION);
    translationConfig. speechRecognitionLanguage = "en-US";
    translationConfig. addTargetLanguage ("de");
```

Explanation:

1. SpeechRecognitionLanguage

2. AddTargetLanguage

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/how-to-translate-speech?tabs=terminal&pivots=programming-language-csharp#change-the-source-language>

One common task of speech translation is specifying the input (or source) language. In your code, interact with the SpeechTranslationConfig instance by assigning it to the SpeechRecognitionLanguage property:

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/how-to-translate-speech?tabs=terminal&pivots=programming-language-csharp#add-a-translation-language>

Another common task of speech translation is to specify target translation languages. At least one is required, but multiples are supported. With every call to AddTargetLanguage, a new target translation language is specified. In other words, when speech is recognized from the source language, each target translation is available as part of the resulting translation operation.

Question: 154

CertyIQ

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

Answer: B

Explanation:

Keys and Endpoint is a correct answer.

Question: 155

CertyIQ

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

Answer:

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

- Create a Custom Speech project.
- Create a speech-to-text model.
- Upload training datasets.
- Train the model.
- Deploy the model.



Explanation:

1. Create Custom Speech project
2. Create speech-to-text model
3. Upload training datasets
4. Train model
5. Deploy model

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/custom-speech-overview#how-does-it-work>

With Custom Speech, you can upload your own data, test and train a custom model, compare accuracy between models, and deploy a model to a custom endpoint.

- Create a project and choose a model. Use a Speech resource that you create in the Azure portal. If you will

train a custom model with audio data, choose a Speech resource region with dedicated hardware for training audio data.

- Upload test data. Upload test data to evaluate the speech to text offering for your applications, tools, and products.
- Train a model. Provide written transcripts and related text, along with the corresponding audio data. Testing a model before and after training is optional but recommended.
- Deploy a model. Once you're satisfied with the test results, deploy the model to a custom endpoint. With the exception of batch transcription, you must deploy a custom endpoint to use a Custom Speech model.

Question: 156

CertyIQ

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

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/how-to-custom-voice-talent#add-voice-talent>

- On the Upload voice talent statement page, follow the instructions to upload the voice talent statement you've recorded beforehand. Make sure the verbal statement was recorded with the same settings, environment, and speaking style as your training data.
- Enter the voice talent name and company name. The voice talent name must be the name of the person who recorded the consent statement. The company name must match the company name that was spoken in the recorded statement.

Question: 157

CertyIQ

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:****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

- 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.

**Explanation:**

1. From portal, export solution as package file.
2. From host computer, move package file to Docker input directory.
3. From host computer, run container and specify input directory.

<https://learn.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-howto?tabs=v3#how-to-use-the-container>

- Export package for container from LUIS portal or LUIS APIs.
- Move package file into the required input directory on the host computer. Do not rename, alter, overwrite, or decompress the LUIS package file.
- Run the container, with the required input mount and billing settings.

Question: 158**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

```
...  
  
<mstts:express-as  
    How can I assist you?  
/>  
...  
  
        = "YoungAdultFemale"  
        = "gentle">  
        role  
        style  
        styledegree  
        type  
        voice  
        role  
        style  
        styledegree  
        type  
        voice
```

Answer:

Answer Area

```
...  
  
<mstts:express-as  
    How can I assist you?  
/>  
...  
  
        = "YoungAdultFemale"  
        = "gentle">  
        role  
        style  
        styledegree  
        type  
        voice  
        role  
        style  
        styledegree  
        type  
        voice
```

Explanation:

1. role

2. style

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/speech-synthesis-markup-voice#speaking-styles-and-roles>

By default, neural voices have a neutral speaking style. You can adjust the speaking style, style degree, and role at the sentence level.

The following table has descriptions of each supported style attribute.

- style="gentle"

Expresses a mild, polite, and pleasant tone, with lower pitch and vocal energy.

The following table has descriptions of each supported role attribute.

- role="YoungAdultFemale"

The voice imitates a young adult female.

Question: 159

CertyIQ

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

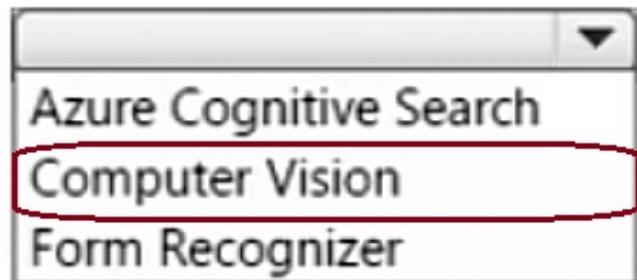
Perform sentiment analysis:

Azure Cognitive Search
Computer Vision
Form Recognizer
Language

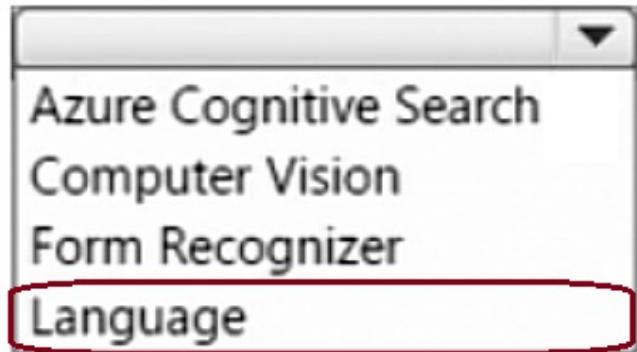
Answer:

Answer Area

Extract text:



Perform sentiment analysis:



Explanation:

1. Computer Vision

Computer Vision has the ability to extract text from images and PDF files, making it a suitable choice for this scenario. Once the text has been extracted, you can then use a text analytics service, such as the Azure Cognitive Services Text Analytics API, to perform sentiment analysis on the extracted text.

Wrong Answers:

Azure Cognitive Search is a search-as-a-service solution that allows you to index and search structured and unstructured data. It can also extract text from PDF files, but it may not provide the level of accuracy required for sentiment analysis.

Form Recognizer is a service that is designed to extract structured data from forms, such as receipts, invoices, and business cards. It may not be the best choice for extracting text from press releases.

2. Language

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

OCR or Optical Character Recognition is also referred to as text recognition or text extraction. Machine-learning based OCR techniques allow you to extract printed or handwritten text from images, such as posters, street signs and product labels, as well as from documents like articles, reports, forms, and invoices. The text is typically extracted as words, text lines, and paragraphs or text blocks, enabling access to digital version of

the scanned text. This eliminates or significantly reduces the need for manual data entry.

Question: 160

CertyIQ

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

Answer: AC

Explanation:

AC is the answer.

<https://learn.microsoft.com/en-us/azure/cognitive-services/content-moderator/text-moderation-api>

Use Content Moderator's text moderation models to analyze text content, such as chat rooms, discussion boards, chatbots, e-commerce catalogs, and documents.

The service response includes the following information:

- Profanity: term-based matching with built-in list of profane terms in various languages
- Classification: machine-assisted classification into three categories
- Personal data
- Auto-corrected text
- Original text
- Language

Question: 161

CertyIQ

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($"{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:

Answer Area

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 type="radio"/>	<input checked="" type="radio"/>

Explanation:

NYN:

<https://learn.microsoft.com/en-us/dotnet/api/azure.ai.textanalytics.textanalyticsclient.recognizeentities?view=azure-dotnet>

Definition:

Runs a predictive model to identify a collection of named entities in the passed-in document, and categorize those entities into types such as person, location, or organization.

This method does not extract phrases.

Particularly for the last point we are using the RecognizeEntities method that is used for NER purposes. And

the we loop in to the list of entities.

https://github.com/Azure/azure-sdk-for-net/blob/main/sdk/textanalytics/Azure.AI.TextAnalytics/samples/Sample4_RecognizeEntities.md

For Key-Phrase extraction there is another method "ExtractKeyPhrases"

https://github.com/Azure/azure-sdk-for-net/blob/main/sdk/textanalytics/Azure.AI.TextAnalytics/samples/Sample3_ExtractKeyPhrases.md

for key-phrases

Question: 162

CertyIQ

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:

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

Explanation:

1. api-nam.cognitive.microsofttranslator.com

2. translate

<https://learn.microsoft.com/en-us/azure/cognitive-services/Translator/reference/v3-0-reference#base-urls>

Requests to Translator are, in most cases, handled by the datacenter that is closest to where the request originated. If there's a datacenter failure when using the global endpoint, the request may be routed outside of the geography.