



Microsoft

Clearcat.Net | FIRST ATTEMPT PASS | WWW.CLEARCATNET.COM
(AI-102)

Designing and Implementing a Microsoft Azure AI Solution

Be Microsoft Azure AI Engineer Certified Now!



AI-102 Dumps PDF



Latest Real Exam Q&A, FIRST ATTEMPT PASS



234 Q&A.



Full Premium Material PDF – Verified by Experts

Follow us on: [Facebook](#) | [Instagram](#) | [LinkedIn](#) | [reddit](#) | [Twitter](#) | [Quora](#) | [YouTube](#)

Send us your request/inquiry at clearcat.net@gmail.com or connect us for [Live Support](#) any time for **any certification exam dumps pdf** Or for **most asked Interview Q&A PDFs** to ensure your success in first try!!



YouTube.com
/CLEARCATNET



t.Me
/CLEARCATNET

Unlock
Any IT Certification Now

Latest Real Exam Q&A, FIRST ATTEMPT PASS

- ✓ Get Full Premium Questions & Answers PDF
- ✓ Score above 90% + to unlock your certificate
- ✓ First attempt Guaranteed Success



97.8%
Success
Rate



CLEARCATNET

IT CERTIFICATIONS

IT EXAMS

IT TRAINING

IT SUPPORT

IT RESUME

IT VIDEOS

IT QUIZZES

<b

Question: 1**AI-102: Actual Exam Q&A | CLEARCATNET**

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.  
(appId, versionId, new   
{  
    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:

Box 1: AddPhraseListAsync -

Example: Add phraselist feature -

```
var phraselistId = await client.Features.AddPhraseListAsync(appId, versionId, new PhraselistCreateObject
```

```
    EnabledForAllModels = false,
```

```
    IsExchangeable = true,
```

```
    Name = "QuantityPhraselist",
```

```
    Phrases = "few,more,extra"
```

```
);
```

Box 2: PhraselistCreateObject -

Reference:

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

Question: 2**AI-102**

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

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 Area

Select v1.1 of app1.

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

Run a container and mount the model file.

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.

Versions ?

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

AI-102: Actual Exam Q&A | CLEARCATNET

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-us/azure/cognitive-services/qnamaker/overview/overview>

Question: 4**AI-102: Actual Exam Q&A | CLEARCATNET**

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**AI-102: Actual Exam Q&A | CLEARCATNET**

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/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"

 }
}

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

Question: 6

AI-102: Actual Exam Q&A | CLEARCATNET

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:

BC is the answer.

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

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.

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

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.

Question: 7

AI-102: Actual Exam Q&A | **CLEARCATNET**

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.

Pull the Anomaly Detector container image.

Create a custom Dockerfile.

Distribute a docker run script.

Build the image.

Push the image to an Azure container registry.

Push the image to an Azure container registry.

Build the image.

Push the image to Docker Hub.

Explanation:

Step 1: Pull the Anomaly Detector container image.

Step 2: Create a custom Dockerfile

Step 3: Build the image

Step 4: Push the image to an Azure container registry.

Question: 8**AI-102: Actual Exam Q&A | CLEARCATNET**

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.a 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-all-containers?tabs=sentiment>

Question: 9

AI-102: Actual Exam Q&A | CLEARCATNET

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, as there is free tier available for Computer Vision service.

- Free - Web/Container
- 20 per minute
- 5,000 free transactions per month

Computer vision has free tier offering generating image captions (I have tried it), and the customer vision doesn't directly support generate captions on the image but returns some info about the given image specifically in the object detection part, under a very specific condition that you have pretrained the model on your own images which is not stated in the question.

Question: 10

AI-102

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:

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

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

Question: 11

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102: Actual Exam Q&A | CLEARCATNET

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:

The correct answer is 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

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102

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

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

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

network named vnet1.

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

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

Solution: You deploy service1 and a public endpoint, and you configure 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>

Question: 16

AI-102: Actual Exam Q&A | CLEARCATNET

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

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

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

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

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

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

Does this meet the goal?

A. Yes

B. No

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>

Question: 17

AI-102

You plan to perform predictive maintenance.

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

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

Which Azure service should you use?

- A. Anomaly Detector
- B. Cognitive Search
- C. Form Recognizer
- D. Custom Vision

Answer: A

Explanation:

A is the answer.

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

Anomaly Detector is an AI service with a set of APIs, which enables you to monitor and detect anomalies in your time series data with little machine learning (ML) knowledge, either batch validation or real-time inference.

Question: 18

AI-102: Actual Exam Q&A | **CLEARCATNET**

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.

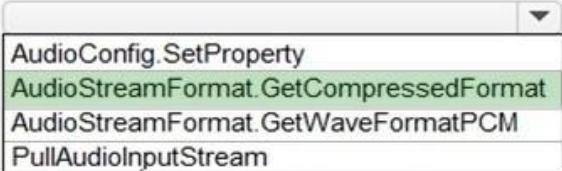
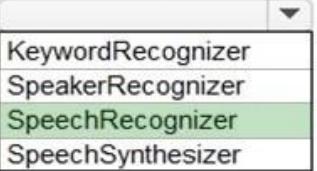
Hot Area:

Answer Area

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

Answer:

Answer Area

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

Explanation:

GetCompressedFormat

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.audio.audiostreamformat.getcompressedformat?view=azure-dotnet>

SpeechRecognizer

Reference:

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

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.audio.audiostreamformat.getcompressedformat?view=azure-dotnet>

Question: 19

AI-102

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>

Question: 20

AI-102: Actual Exam Q&A | CLEARCATNET

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 and E are correct answer.

QnA Maker service is being retired on 31st March, 2025. A newer version of this capability is now available as a part of Azure Cognitive Service for Language called question answering. To use this service, you need to provision a Language resource. For question answering capability within the Language service, see question answering and its pricing page. Beginning 1st October, 2022, you won't be able to create any new QnA Maker resources. For information on migrating your existing QnA Maker knowledge bases to question answering, consult the migration guide.

Reference:

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

Question: 21**AI-102: Actual Exam Q&A | CLEARCATNET**

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**AI-102: Actual Exam Q&A | CLEARCATNET**

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

AI-102: Actual Exam Q&A | CLEARCATNET

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

Speaker Recognition

Speech to Text

Text Analytics

Text to Speech

Translator

Answer Area

Detect the incoming language:

Respond in the callers' own language:

Answer:

Services

Speaker Recognition

Speech to Text

Text Analytics

Text to Speech

Translator

Answer Area

Detect the incoming language:

Speech to Text

Respond in the callers' own language:

Text to Speech

Explanation:

1. Speech to Text with AutoDetectSourceLanguageConfig. It can't be Text Analytics because the input is callers' voice.
2. - Text to Speech: the output is voice.

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

Both support common languages, including French.

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/language-support?tabs=speechtotext>

Question: 24

AI-102: Actual Exam Q&A | CLEARCATNET

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 is the answer.

<https://learn.microsoft.com/en-us/dotnet/api/azure.ai.formrecognizer.formrecognizerclient?view=azure-dotnet>

The client to use to connect to the Form Recognizer Azure Cognitive Service to recognize information from forms and images and extract it into structured data. It provides the ability to analyze receipts, business cards, and invoices, to recognize form content, and to extract fields from custom forms with models trained on custom form types.

Question: 25

AI-102: Actual Exam Q&A | CLEARCATNET

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:

D is the answer.

<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
- Translator for machine text translation

Question: 26

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102

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>

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102

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

AI-102: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

https://

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

/text/analytics/v3.1/entities/recognition/general
/text/analytics/v3.1/languages
/translator/text/v3.0/translate?to=en
/translator/text/v3.0/translate?to=fr

Answer:

Answer Area

https://

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

/text/analytics/v3.1/entities/recognition/general
/text/analytics/v3.1/languages
/translator/text/v3.0/translate?to=en
/translator/text/v3.0/translate?to=fr

Explanation:

Box1:

<https://eastus.api.cognitive.microsoft.com>

Box2:

/text/analytics/v3.1/languages

Reference:

[https://learn.microsoft.com/en-us/rest/api/cognitiveservices-textanalytics/3.0/languages/languages?
tabs=HTTP.](https://learn.microsoft.com/en-us/rest/api/cognitiveservices-textanalytics/3.0/languages/languages?tabs=HTTP)

Question: 31

AI-102: Actual Exam Q&A | CLEARCATNET

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:

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.

So, the correct answer is:

- B. a table projection

Question: 32

AI-102: Actual Exam Q&A | CLEARCATNET

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 is the answer.

Quote "In Cognitive Search, replicas are copies of your index." at <https://learn.microsoft.com/en-us/azure/search/search-reliability>

<https://learn.microsoft.com/en-us/azure/search/search-performance-analysis#throttling-behaviors>

Throttling occurs when the search service is at capacity. Throttling can occur during queries or indexing. From the client side, an API call results in a 503 HTTP response when it has been throttled. During indexing, there's also the possibility of receiving a 207 HTTP response, which indicates that one or more items failed to index. This error is an indicator that the search service is getting close to capacity.

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's important to know the reason why throttling is occurring at all. Investigating the conditions that cause throttling will be explained in the next several sections.

Reference:

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

Question: 33

AI-102: Actual Exam Q&A | CLEARCATNET

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:

Microsoft Azure



Sign in

to continue to Microsoft Azure

Email, phone, or Skype

No account? Create one!

Can't access your account?

Next

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

Name: Text12345678 -

Create Cognitive Services

X

Basics Tags Review + create

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

Project details

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

Subscription * ⓘ

Resource group * ⓘ

[Create new](#)

Instance details

Region * ⓘ



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

Name * ⓘ



Pricing tier * ⓘ



[View full pricing details](#)

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

I confirm I have read and understood the notice below.

[Review + create](#)

< Previous

Next : Tags >

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

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

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

Step 7: Select + Add diagnostic setting.

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

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

Step 10: Click Save.

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

Reference:

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

Question: 34

AI-102: Actual Exam Q&A | CLEARCATNET

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](#)

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

I confirm I have read and understood the notice below.

[Review + create](#)

< Previous

Next : Tags >

Step 4: Click Review + create -

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 Samples

Type



Name

realestate-us-sample

② 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.

Import data

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

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

Index name *

hotels-sample-index

Key *

HotelId

Suggester name

sq

Search mode

[+ Add field](#) [+ Add subfield](#) [Delete](#)

Field name	Type	Retrievable	Filterable	Sortable	Focetable	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="checkbox"/>	<input type="checkbox"/>
HotelName	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Step 10: Continue and finish the wizard.

Reference:

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

Question: 35**AI-102: Actual Exam Q&A | CLEARCATNET**

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

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](#)

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

I confirm I have read and understood the notice below.

[Review + create](#)

[< Previous](#)

[Next : Tags >](#)

Step 4: Click Review + create -

(Step 5: Create a data source

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

Dashboard >

>

Import data

X

*Connect to your data

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

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

Data Source



Azure Blob Storage



Data source name *

signs



Data to extract ⓘ

Content and metadata



Parsing mode

Default



Connection string *



DefaultEndpointsProtocol=https;AccountName=

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

Container name * ⓘ



signs



Blob folder ⓘ

your/folder/here

Description

(optional)

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

Reference:

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

Question: 36

AI-102

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:

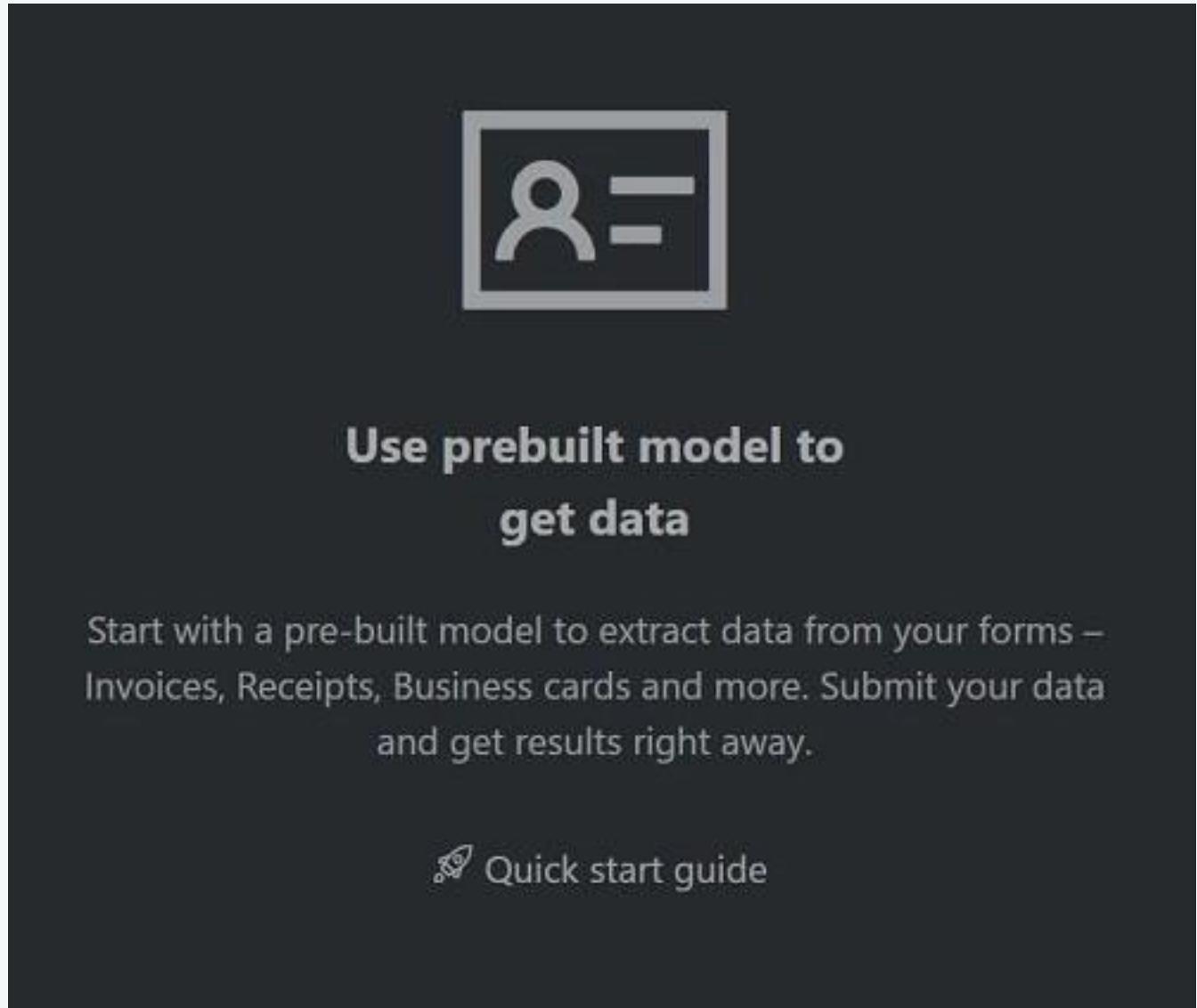
See explanation below.

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>)

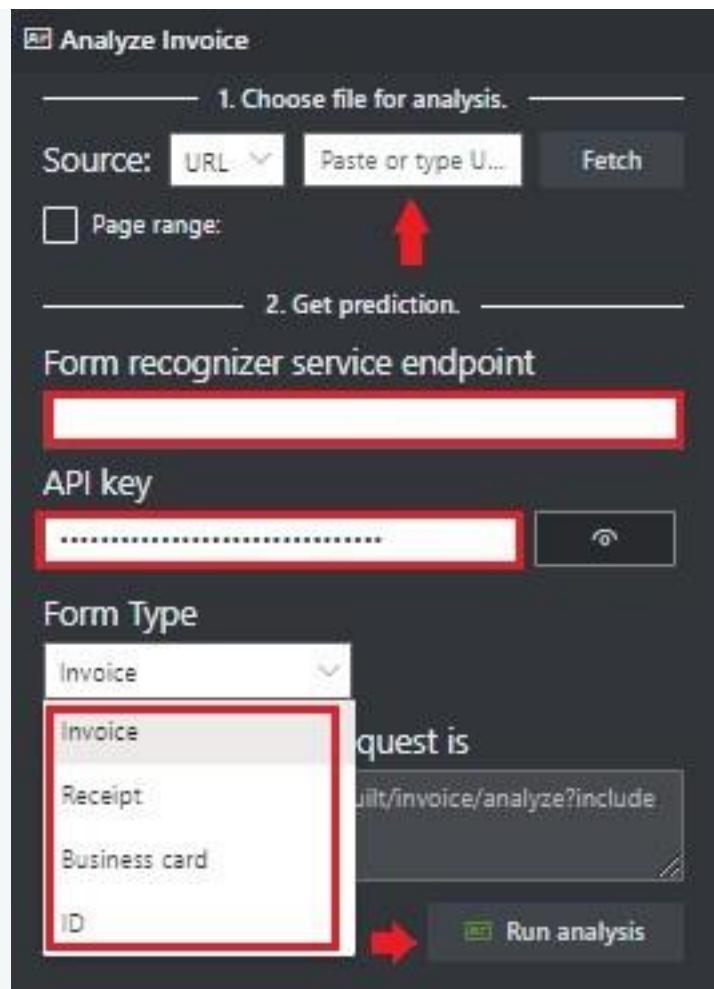
Step 3: On the sample tool home page select Use prebuilt model to get data.



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	95.80%
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	95.10%
CID-12345	
CustomerName	94.80%
MICROSOFT CORPORATION	
DueDate	95.90%
text: 12/15/2019	
valueDate: 2019-12-15	
InvoiceDate	95.70%
text: 11/15/2019	
valueDate: 2019-11-15	
InvoiceId	97.00%
INV-100	
InvoiceTotal	95.70%
text: \$610.00	
valueNumber: 610	
Lines	NAN
Click to view analyzed table	
PreviousUnpaidBalance	95.60%
text: \$300.00	
valueNumber: 300	
PurchaseOrder	95.20%
PO-3333	
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/prebuilts-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

AI-102: Actual Exam Q&A | CLEARCATNET

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**AI-102: Actual Exam Q&A | CLEARCATNET**

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: C**Explanation:**

"Searchable" attribute: This attribute allows users to search for words in the category field. It means that the field can be included in full-text searches.

"Facetable" attribute: This attribute allows users to perform drill-down filtering based on category. Faceting is used for self-directed drill-down filtering on query results in a search app, where your application offers form controls for scoping search to groups of documents (for example, categories or brands), and Azure Cognitive Search provides the data structures and filters to back the experience.

"Retrievable" attribute: This attribute allows the category field to be included in the search results. It means that the field can be included in the search results returned by the search service.

Question: 39**AI-102: Actual Exam Q&A | CLEARCATNET****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 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

Validation Passed

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

Basics

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

Identity

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

[Create](#)

[< Previous](#)

[Next](#)

[Download a template for automation](#)

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

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

Tag visual features -

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

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

Reference:

Question: 40

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102: Actual Exam Q&A | **CLEARCATNET**

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

Answer:

See explanation below.

Explanation:

[\[email protected\]](mailto:) = admin@abc.com

Step 1: Login -

Browse to the Azure Video Indexer website and sign in.

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

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

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

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102: Actual Exam Q&A | CLEARCATNET

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

AI-102

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.

Question: 46

AI-102: Actual Exam Q&A | CLEARCATNET

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:

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.

Therefore, the correct answer is D. describeImageInputStreamAsync.

Question: 47

AI-102

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)
2. Retain model
3. Export model

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

- In the Domains section, select one of the compact domains. Select Save Changes to save the changes.
- From the top of the page, select Train to retrain using the new domain.
- Go to the Performance tab and select Export.

<https://learn.microsoft.com/en-us/azure/cognitive-services/Custom-Vision-Service/export-your-model>the model must be retrained after changing the domain to compact.

Question: 48

AI-102

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:

To ensure that the AI solution meets the Microsoft responsible AI principles, you should:

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

AI-102

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 is the answer.

<https://learn.microsoft.com/en-us/azure/cognitive-services/cognitive-services-virtual-networks?tabs=portal#grant-access-from-a-virtual-network>

You can configure Cognitive Services resources to allow access only from specific subnets. The allowed subnets may belong to a VNet in the same subscription, or in a different subscription, including subscriptions belonging to a different Azure Active Directory tenant.

Question: 50

AI-102

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>

Question: 51

AI-102: Actual Exam Q&A | CLEARCATNET

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: B

Explanation:

Here we need not only to minimize the costs but minimize the usage of the network due to an app hosted in a location with limited connectivity. So it's preferable to host the model in the same location/network where the app is. And to do that the solution is to containerize the model, and host locally using a docker engine.

ACI is still hosted on Azure and you need to have reasonable internet connectivity to make your solution work. Instead you should run the container on premise using Docker or other means and specify the API key and the endpoint while launching the container instance for billing purpose.

<https://learn.microsoft.com/en-us/azure/cognitive-services/cognitive-services-container-support>

Question: 52

AI-102

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

AI-102

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 is correct.

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

Batch detection

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>

Question: 54

AI-102

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	Answer Area
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.	

(Up) (Down)

Answer:

Actions	Answer Area
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.	

(Up) (Down)

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

AI-102

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 URL: `https://management.azure.com/`. Below it is a dropdown menu containing several resource paths:
subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12
subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad
tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12
tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad

Below this is another dropdown menu for the account:
/accounts/CS1?api-version=2021-10-01
Microsoft.ApiManagement
Microsoft.CognitiveServices
Microsoft.ContainerService
Microsoft.KeyVault

Answer:

Answer Area

The screenshot shows the same Azure Management Portal URL and dropdown menus as the previous image. The correct answers are highlighted with red boxes:
subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12
subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad

Below this is the account dropdown menu:
/accounts/CS1?api-version=2021-10-01
Microsoft.ApiManagement
Microsoft.CognitiveServices
Microsoft.ContainerService
Microsoft.KeyVault

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

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.

AI-102

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

AI-102: Actual Exam Q&A | CLEARCATNET

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: BE

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/how-to-configure-azure-ad-auth?tabs=portal&pivots=programming-language-csharp#:~:text=For%20Azure%20AD%20authentication%20with,the%20Azure%20portal%20or%20PowerShell>

Question: 58**AI-102: Actual Exam Q&A | CLEARCATNET**

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

The code will perform face recognition.

The code will list tags and their associated confidence.

The code will read a file from the local file system.

Answer:

Answer Area**Statements**

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

The code will perform face recognition.

The code will list tags and their associated confidence.

The code will read a file from the local file system.

Explanation:

Box 1: No -

Box 2: Yes -

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

Box 3 : yes

[https://learn.microsoft.com/en-us/java/api/com.microsoft.azure.cognitiveservices.vision.computervision.computervision?view=azure-legacy#com-microsoft-azure-cognitiveservices-vision-computervision-computervision-analyzeimageinstreamasync\(byte\(\)-analyzeimageinstreamoptionalparameter\)](https://learn.microsoft.com/en-us/java/api/com.microsoft.azure.cognitiveservices.vision.computervision.computervision?view=azure-legacy#com-microsoft-azure-cognitiveservices-vision-computervision-computervision-analyzeimageinstreamasync(byte()-analyzeimageinstreamoptionalparameter))

This operation extracts a rich set of visual features based on the image content. Two input methods are supported (1) Uploading an image or (2) specifying an image URL.

Question: 59

AI-102: Actual Exam Q&A | CLEARCATNET

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: 60

AI-102: Actual Exam Q&A | CLEARCATNET

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

Explanation:

Selection 1: <https://westus.api.cognitive.microsoft.com>

Selecting 2: Generate Thumbnail

Althought Using the API for generating thumbnail feature is available through both the Get Thumbnail and Get Area of Interest APIs both leveraging smart cropping, the ask is only to resize the entire image.

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

Generate Thumbnail

This operation generates a thumbnail image with the user-specified width and height.

POST https://westus.api.cognitive.microsoft.com/vision/v3.1/generateThumbnail?
width=500&height=500&smartCropping=True

Ocp-Apim-Subscription-Key: API key

Reference:

<https://westus.dev.cognitive.microsoft.com/docs/services/computer-vision-v3-2/operations/56f91f2e778daf14a499f21b> <https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-generating-thumbnails#examples>

Question: 61

AI-102: Actual Exam Q&A | CLEARCATNET

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=` Value `controls=` Value

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

Answer:

Values	Answer Area
false	
people,search	

Cognitive Insights Widget
`https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets=` people,keywords `controls=` search

Player Widget
`https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/? showcaptions=` true `captions=` en-US

Explanation:

1. people, keywords / search
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: 62

AI-102: Actual Exam Q&A | **CLEARCATNET**

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:

1 Change the model domain

2 Retrain the model

3 Export the model

"Convert to a compact domain" for action #1 and #2

"Export your model" for action #3

Reference:

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

Question: 63

AI-102

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 = httpplib.HTTPEConnection('westus.api.cognitive.microsoft.com')  
    conn.request('POST',  
    f'/face/v1.0/persongroups/{person_group_id}/persons/{person_id}/persistedFaces', f'{body}', headers)  
    response = conn.getresponse()  
    response_data = response.read()
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements

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

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

Explanation:

Yes

Yes

Yes

"Free-tier subscription quota: 1,000 person groups. Each holds up to 1,000 persons.

S0-tier subscription quota: 1,000,000 person groups. Each holds up to 10,000 persons."

Reference:

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

Question: 64**AI-102**

DRAG DROP -

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

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

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

You need to move obj1 to acvprod.

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

Select and Place:

Actions	Answer Area
Use the ExportProject endpoint on acvdev.	
Use the GetProjects endpoint on acvdev.	
Use the ImportProject endpoint on acvprod.	
Use the ExportIteration endpoint on acvdev.	
Use the GetIterations endpoint on acvdev.	
Use the UpdateProject endpoint on acvprod.	

Select and Place:
 

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. GetProjects on acvDEV
2. ExportProjects on acvDEV
3. ImportProjects on acvPROD

Reference:

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

Question: 65**AI-102****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 -

Create a new project.

Step 2: Upload and tag the images

Choose training images. Then upload and tag the images.

Step 3: Train the classifier model.

Train the classifier -

Reference:

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

Question: 66

AI-102

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>

Question: 67

AI-102: Actual Exam Q&A | CLEARCATNET

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>

Question: 68

AI-102

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 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/>

Question: 69

AI-102: Actual Exam Q&A | CLEARCATNET

DRAG DROP -

You are developing a call to the Face API. The call must find similar faces from an existing list named employefaces. The employefaces 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] : "employefaces",  
  "maxNumOfCandidatesReturned": 1,  
  "mode": [REDACTED]  
}
```

Answer:

Values

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

Answer Area

```
{  
  "faceId": "18c51a87-3a69-47a8-aedc-a54745f708a1",  
  "LargeFaceListId": "employefaces",  
  "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 persistedFacIds 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: 70

AI-102: Actual Exam Q&A | CLEARCATNET

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: findsimilars

others do not match the given request body and make no sense anyway.

Box 2: matchPerson -

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

Reference:

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

Question: 71

AI-102: Actual Exam Q&A | **CLEARCATNET**

HOTSPOT -

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

You have the following code segment.

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements

Yes No

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

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

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

Answer:

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 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 -

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.

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

Reference:

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

Question: 72

AI-102

HOTSPOT -

You develop an application that uses the Face API.

You need to add multiple images to a person group.

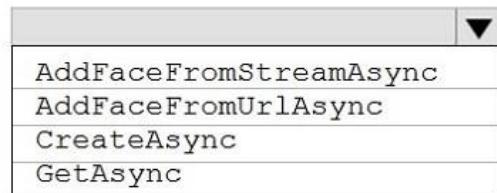
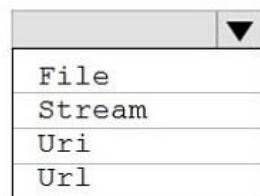
How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

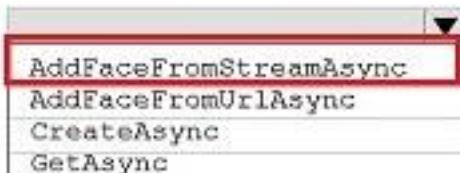
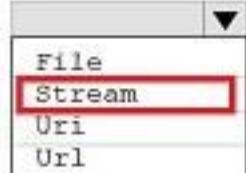
```
Parallel.For(0, PersonCount, async i =>
{
    Guid personId = persons[i].PersonId;
    string personImageDir = $"{path/to/person/{i}/images}";
    foreach (string imagePath in Directory.GetFiles(personImageDir, "*.jpg"))
    {
        using (File t = File.OpenRead(imagePath))
        {
         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



Answer:

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 (Stream t = File.OpenRead(imagePath))
        {
            await faceClient.PersonGroupPerson.
        }
    }
});
```



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: add face from stream async

Question: 73

AI-102: Actual Exam Q&A | CLEARCATNET

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: 74

AI-102: Actual Exam Q&A | CLEARCATNET

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:

A is the answer.

<https://learn.microsoft.com/en-us/azure/cognitive-services/cognitive-services-apis-create-account-client-library?pivots=programming-language-python#create-a-cognitive-services-resource-python>

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: 75

AI-102: Actual Exam Q&A | CLEARCATNET

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.

Explanation:

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: 76**AI-102: Actual Exam Q&A | CLEARCATNET**

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: 77**AI-102**

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: 78

AI-102: Actual Exam Q&A | CLEARCATNET

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: 79**AI-102: Actual Exam Q&A | CLEARCATNET**

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

2 - imageType

<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

Question: 80**AI-102: Actual Exam Q&A | CLEARCATNET**

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:**

B is the answer.

<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.

Question: 81**AI-102**

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.



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.



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 faceId, 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: 82

AI-102

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: 83

AI-102: Actual Exam Q&A | CLEARCATNET

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 Azure Video Analyzer for Media website

2. From Content model customization, select Brands

3. Add specific company names to include list

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/customize-brands-model-with-website>

Question: 84

AI-102: Actual Exam Q&A | CLEARCATNET

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: 85

AI-102

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:

C, because of the minimized development effort. Since the prebuilt model of C also fits the other two requirements, so there is no need to train a custom model.

source: <https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/how-to/call-analyze-image?tabs=rest>

Question: 86

AI-102: Actual Exam Q&A | CLEARCATNET

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:

<https://learn.microsoft.com/en-us/rest/api/computervision/3.1/detect-objects/detect-objects?tabs=HTTP#boundingrect>

A bounding box for an area inside an image.

- x

X-coordinate of the top left point of the area, in pixels.

- y

Y-coordinate of the top left point of the area, in pixels.

- h

Height measured from the top-left point of the area, in pixels.

- w

Width measured from the top-left point of the area, in pixels.

Question: 87

AI-102

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. Object detection
2. General (compact)

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

- Select Object Detection under Project Types.

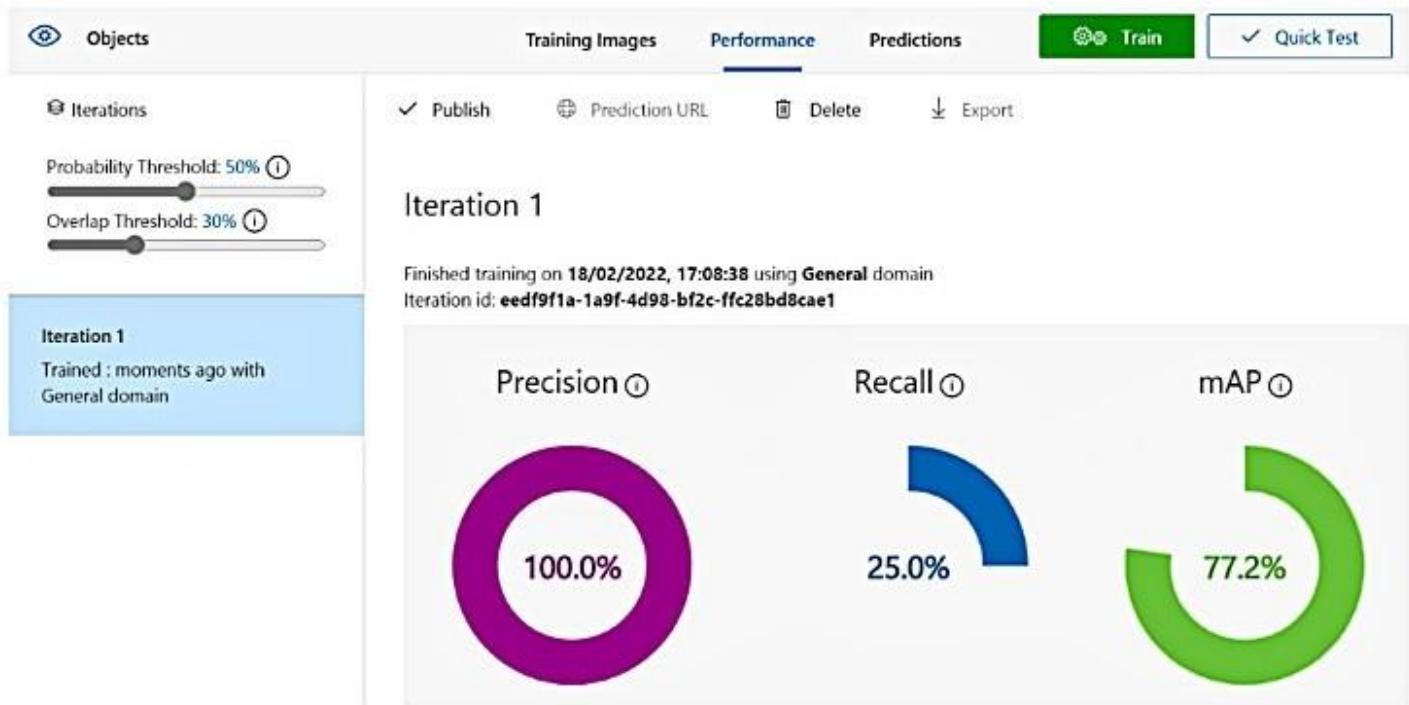
<https://learn.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/select-domain#compact-domains>

The models generated by compact domains can be exported to run locally.

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: 89**AI-102: Actual Exam Q&A | CLEARCATNET**

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/azure/cognitive-services/Custom-Vision-Service/get-started-build-detector>

Question: 90**AI-102: Actual Exam Q&A | CLEARCATNET**

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: 91**AI-102**

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)

AI-102: Actual Exam Q&A | CLEARCATNET

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 need to be extended and retrained.

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

Question: 93**AI-102: Actual Exam Q&A | CLEARCATNET**

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: 94**AI-102: Actual Exam Q&A | CLEARCATNET**

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: 95**AI-102: Actual Exam Q&A | CLEARCATNET**

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 (config, audioConfig)
    {
        IntentRecognizer
        SpeakerRecognizer
        SpeechSynthesizer
        TranslationRecognizer
    }

    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"} (Selected)
        {"French", "Spanish", "German"}
        {languages}
    }

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

    using var audioConfig = AudioConfig.FromDefaultMicrophoneInput();
    using var recognizer = new (config, audioConfig)
    {
        IntentRecognizer
        SpeakerRecognizer
        SpeechSynthesizer
        TranslationRecognizer (Selected)
    }

    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: 96

AI-102: Actual Exam Q&A | CLEARCATNET

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:

Actions

Get suggested tags.

Upload all the images.

Review the suggestions and confirm the tags.

Answer Area

Group the images locally into category folders.

Upload the images by category.

Tag the images manually.

Explanation:

The question emphasizes two things - 1) the model has already been trained 2) the solution should be

expedient. The given answer will be very slow to manually tag 1,000 images. instead:

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

Reference:

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

Question: 97

AI-102: Actual Exam Q&A | CLEARCATNET

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: B

Explanation:

A is the answer.

<https://learn.microsoft.com/en-us/azure/cognitive-services/LUIS/concepts/entities#machine-learned-ml-entity>

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:

Question: 98**AI-102: Actual Exam Q&A | CLEARCATNET**

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: 99**AI-102**

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 = "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);
. . .
```

Explanation:

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

Box 2: "?to=en";

Reference:

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

Question: 100

AI-102

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-user-queries-to-enable-active-learning>

Question: 101

AI-102

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

Explanation:

Box 1: Yes -

http://localhost:5000/status : Also requested with GET, this verifies if the api-key used to start the container is valid without causing an endpoint query.

Box 2: 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 \

Box 3: Yes -

<http://localhost:5000/swagger> : The container provides a full set of documentation for the endpoints and a Try it out feature. With this feature, you can enter your settings into a web-based HTML form and make the query without having to write any code. After the query returns, an example CURL command is provided to demonstrate the HTTP headers and body format that's required.

Reference:

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

Question: 102

AI-102

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

Question: 103

AI-102

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-train>

Question: 104

AI-102

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: 105

AI-102: Actual Exam Q&A | CLEARCATNET

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: 106

AI-102

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.

Retrain the model.

Add additional questions to the document.

Republish the model.

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

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

Retrain the model.

Republish the model.

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: 107

AI-102

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

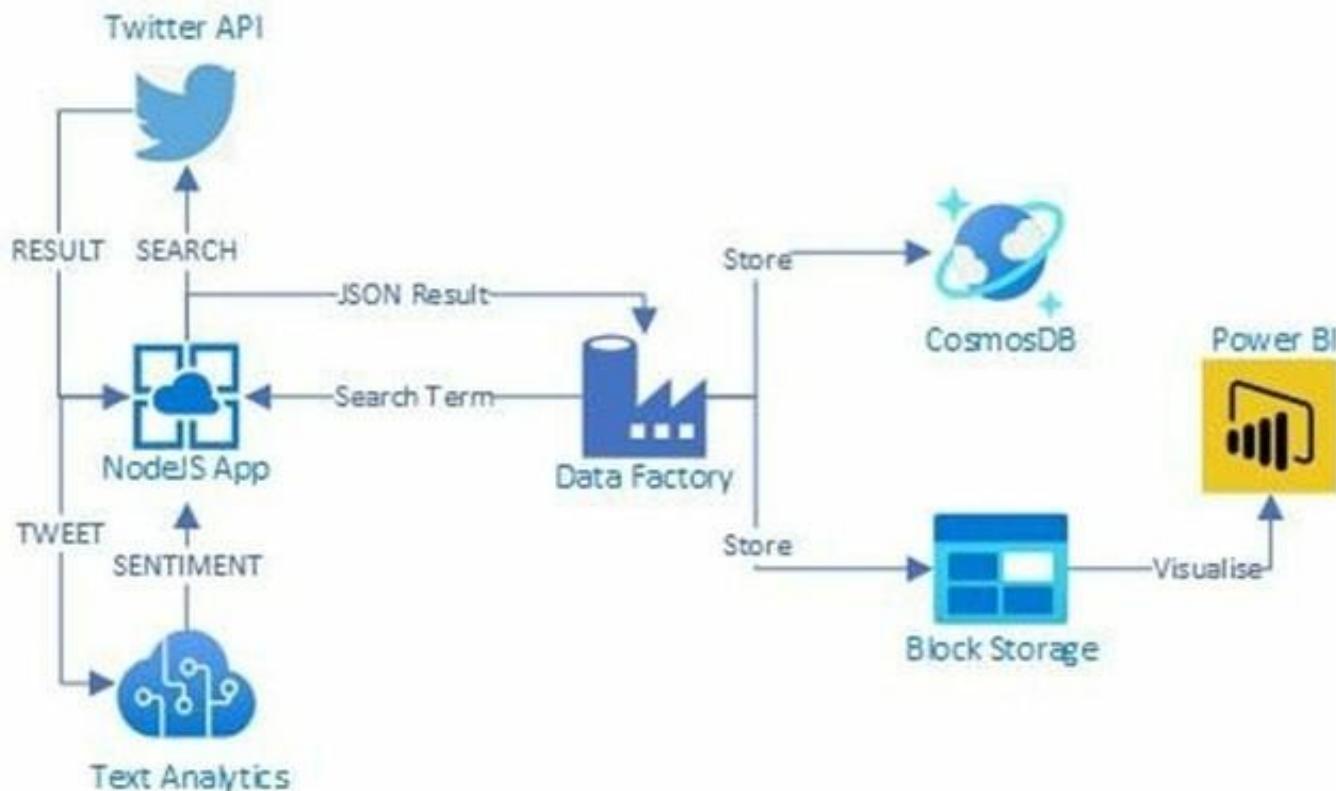
D. Form Recognizer

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:

<https://www.linkedin.com/pulse/measuring-public-perception-azure-cognitive-services-steve-dalai> <https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/overview>

Question: 108

AI-102

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.

AI-102: Actual Exam Q&A | CLEARCATNET

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.

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

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: 110

AI-102

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: 111

AI-102: Actual Exam Q&A | CLEARCATNET

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 []

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

Answer Area

Email

Paris:

List

email@domain.com:

Regex

2 audit business:

GeographyV2

Answer:

Entity Types

Answer Area

Email

List

Regex

GeographyV2

Machine learned

Paris:

email@domain.com:

2 audit business:

GeographyV2

Email

Machine learned

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>

Question: 112

AI-102

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>

Question: 113

AI-102: Actual Exam Q&A | CLEARCATNET

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: 114**AI-102: Actual Exam Q&A | CLEARCATNET**

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: 115**AI-102**

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
[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: 116

AI-102

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

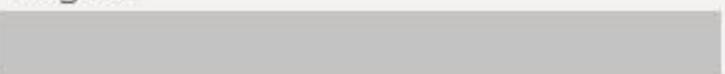
below:

Select Language Understanding resources



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

Key


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: 117

AI-102

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: 118

AI-102: Actual Exam Q&A | CLEARCATNET

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: 119

AI-102

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>

Question: 120

AI-102: Actual Exam Q&A | **CLEARCATNET**

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: 121

AI-102: Actual Exam Q&A | **CLEARCATNET**

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)' contains sections for '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 features a text input field with placeholder 'Type about 5 examples of what a user might say and hit Enter'. Below it is a table with columns for '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 dropdown menu labeled 'Schedule ap...' and three dots. At the bottom, there's a section for 'Entities used in this intent' with a table for 'Name' and 'Labeled utterances'.

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: 122

AI-102: Actual Exam Q&A | CLEARCATNET

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: 123

AI-102

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: 124

AI-102: Actual Exam Q&A | CLEARCATNET

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: 125

AI-102

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: 126

AI-102: Actual Exam Q&A | CLEARCATNET

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](https://uksouth.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: 127

AI-102

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.

Question: 128

AI-102: Actual Exam Q&A | CLEARCATNET

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 <code>url</code> attribute returned for each linked entity will be a Bing search link.	<input type="radio"/>	<input checked="" type="radio"/>
The <code>matches</code> 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: 129

AI-102

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: 130

AI-102: Actual Exam Q&A | CLEARCATNET

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.  = "en-US";
    translationConfig.  ("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: 131**AI-102**

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: 132**AI-102**

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: 133

AI-102: Actual Exam Q&A | CLEARCATNET

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: 134

AI-102

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: 135**AI-102****HOTSPOT**

-

You are building a text-to-speech app that will use a custom neural voice.

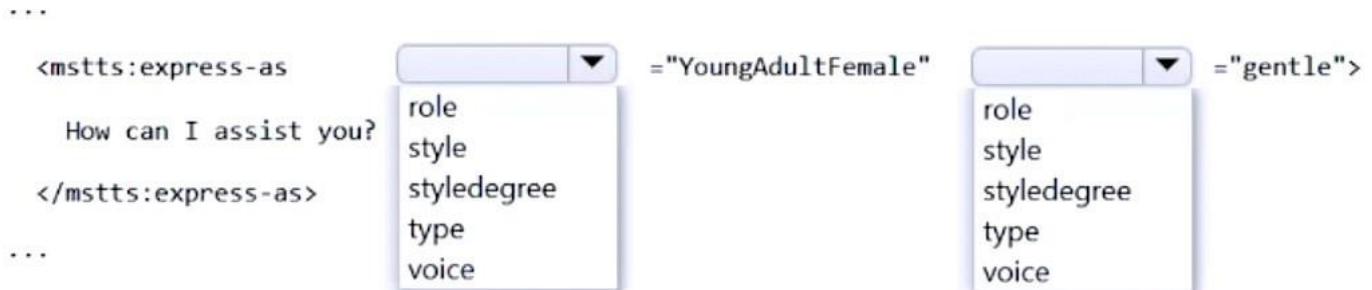
You need to create an SSML file for the app. The solution must ensure that the voice profile meets the following requirements:

- Expresses a calm tone
- Imitates the voice of a young adult female

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

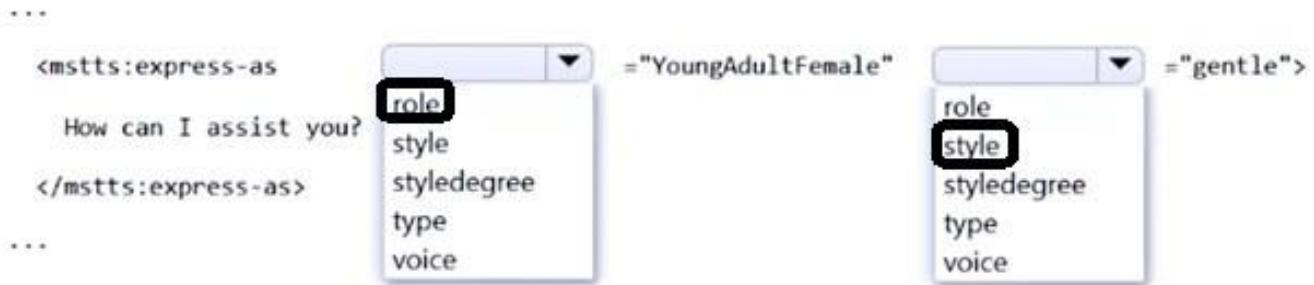
NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Answer Area



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.

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

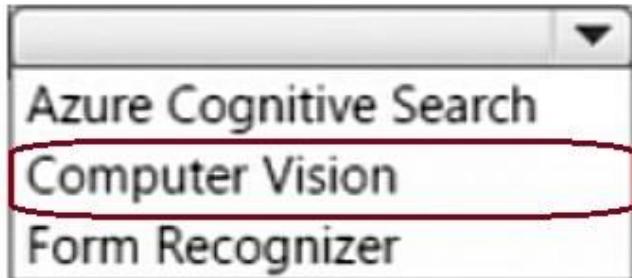
Perform sentiment analysis:

Azure Cognitive Search
Computer Vision
Form Recognizer
Language

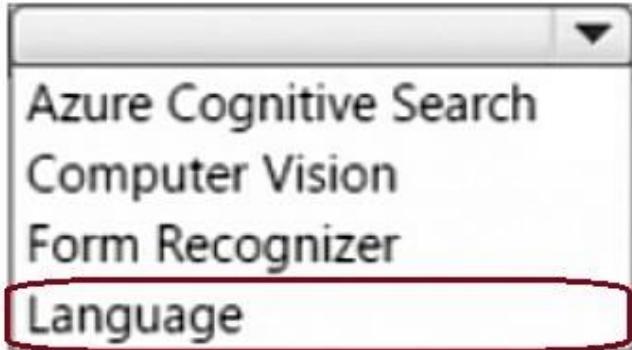
Answer:

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: 137

AI-102: Actual Exam Q&A | CLEARCATNET

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: 138

AI-102

HOTSPOT

-

You are developing a text processing solution.

You have the function shown below.

```

static void GetKeyWords(TextAnalyticsClient textAnalyticsClient, string text)
{
    var response = textAnalyticsClient.RecognizeEntities (text);
    Console.WriteLine("Key words:");

    foreach (CategorizedEntity entity in response.Value)
    {
        Console.WriteLine($"\\t{entity.Text}");
    }
}

```

For the second argument, you call the function and specify the following string.

Our tour of Paris included a visit to the Eiffel Tower

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

Answer Area

Statements	Yes	No
The output will include the following words: our and included.	<input type="radio"/>	<input type="radio"/>
The output will include the following words: Paris, Eiffel, and Tower.	<input type="radio"/>	<input type="radio"/>
The function will output all the key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>

Answer:

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: 139

AI-102: Actual Exam Q&A | CLEARCATNET

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.

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.

Question: 140

AI-102: Actual Exam Q&A | CLEARCATNET

DRAG DROP

-

You have a Docker host named Host1 that contains a container base image.

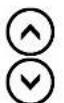
You have an Azure subscription that contains a custom speech-to-text model named model1.

You need to run model1 on Host1.

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

Actions
Retrain the model.
Request approval to run the container.
Export model1 to Host1.
Run the container.
Configure disk logging.

Answer Area



Answer:

Actions
Retrain the model.
Request approval to run the container.
Export model1 to Host1.
Run the container.
Configure disk logging.

Answer Area



Explanation:

1. Request approval to run container
2. Export model1 to Host1
3. Run the container

<https://learn.microsoft.com/en-us/azure/cognitive-services/speech-service/speech-container-stt?tabs=container&pivots=programming-language-csharp>

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

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

You build a language model by using a Conversational Language Understanding. The language model is used to search for information on a contact list by using an intent named FindContact.

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

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

You need to implement the phrase list in Conversational Language Understanding.

Solution: You create a new utterance for each phrase in the FindContact intent.

Does this meet the goal?

- A. Yes
B.No

Answer: B

Explanation:

B. No

Creating a new utterance for each phrase in the FindContact intent is not the most efficient approach for implementing the provided phrase list. Instead, you should use phrase list features or entities to capture variations of these phrases more effectively.

In Conversational Language Understanding, you can define a phrase list or entity that includes variations of location names like "London," "Seattle," and "Ukraine." By doing this, you allow the model to recognize these location names as entities, making your intent more flexible and capable of handling variations. This approach is much more scalable and less labor-intensive than creating individual utterances for each location.

The goal should be met by using phrase lists or entities effectively to capture variations in the input data and improve the model's performance.

Question: 142

AI-102

DRAG DROP

-

You have a question answering project in Azure Cognitive Service for Language.

You need to move the project to a Language service instance in a different Azure region.

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

Actions

- From the new Language service instance, train and publish the project.
- From the new Language service instance, import the project file.
- From the new Language service instance, enable custom text classification.
- From the original Language service instance, export the existing project.
- From the new Language service instance, regenerate the keys.
- From the original Language service instance, train and publish the model.

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

- From the new Language service instance, train and publish the project.
- From the new Language service instance, import the project file.
- From the new Language service instance, enable custom text classification.
- From the original Language service instance, export the existing project.
- From the new Language service instance, regenerate the keys.
- From the original Language service instance, train and publish the model.

Answer Area

- From the original Language service instance, export the existing project.
- From the new Language service instance, import the project file.
- From the new Language service instance, train and publish the project.

**Explanation:**

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/question-answering/how-to/migrate-knowledge-base>

<https://learn.microsoft.com/en-us/azure/ai-services/qnamaker/quickstarts/create-publish-knowledge-base#publish-the-knowledge-base>

Question: 143**AI-102**

DRAG DROP

-

You are building a customer support chatbot.

You need to configure the bot to identify the following:

- Code names for internal product development
- Messages that include credit card numbers

The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

Features

- Custom named entity recognition (NER)
- Key phrase extraction
- Language detection
- Named Entity Recognition (NER)
- Personally Identifiable Information (PII) detection
- Sentiment analysis

Answer Area

Identify code names for internal product development:

Identify messages that include credit card numbers:

Answer:

Features	Answer Area
Custom named entity recognition (NER)	Identify code names for internal product development:
Key phrase extraction	<input type="checkbox"/> Custom named entity recognition (NER)
Language detection	<input type="checkbox"/>
Named Entity Recognition (NER)	<input type="checkbox"/>
Personally Identifiable Information (PII) detection	<input type="checkbox"/>
Sentiment analysis	<input type="checkbox"/>

Explanation:

1. Custom NER
2. PII detection

<https://learn.microsoft.com/en-us/azure/cognitive-services/language-service/custom-named-entity-recognition/overview>

Custom NER enables users to build custom AI models to extract domain-specific entities from unstructured text, such as contracts or financial documents. By creating a Custom NER project, developers can iteratively label data, train, evaluate, and improve model performance before making it available for consumption. The quality of the labeled data greatly impacts model performance.

<https://learn.microsoft.com/en-us/azure/cognitive-services/language-service/personally-identifiable-information/overview>

PII detection 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 PII detection feature can identify, categorize, and redact sensitive information in unstructured text. For example: phone numbers, email addresses, and forms of identification.

Question: 144

AI-102

HOTSPOT

-

You are building an app by using the Speech SDK. The app will translate speech from French to German by using natural language processing.

You need to define the source language and the output language.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
var speechTranslationConfig =  
SpeechTranslationConfig.FromSubscription(speechKey, speechRegion);  
speechTranslationConfig.  
speech_translation_config.  
= "fr"  
("de")
```

The code shows two separate instances of the `SpeechTranslationConfig` class. The first instance has its `TargetLanguage` property set to "fr". The second instance has its `TargetLanguage` property set to "de". Both instances have their `SpeechRecognitionLanguage` methods highlighted in the IntelliSense dropdown.

Answer:

Answer Area

```
var speechTranslationConfig =  
SpeechTranslationConfig.FromSubscription(speechKey, speechRegion);  
speechTranslationConfig.  
speech_translation_config.  
= "fr"  
("de")
```

The code shows two separate instances of the `SpeechTranslationConfig` class. The first instance has its `TargetLanguage` property set to "fr". The second instance has its `TargetLanguage` property set to "de". Both instances have their `SpeechRecognitionLanguage` methods highlighted in the IntelliSense dropdown. In the second dropdown, the `AddTargetLanguage` method is also highlighted.

Question: 145

DRAG DROP

-

You have a collection of Microsoft Word documents and PowerPoint presentations in German.

You need to create a solution to translate the files to French. The solution must meet the following requirements:

AI-102

- Preserve the original formatting of the files.
- Support the use of a custom glossary.

You create a blob container for German files and a blob container for French files. You upload the original files to the container for German files.

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

Actions	Answer Area
Perform an asynchronous translation by using the list of files to be translated.	
Perform an asynchronous translation by using the document translation specification.	
Generate a list of files to be translated.	 
Upload a glossary file to the container for German files.	 
Upload a glossary file to the container for French files.	
Define a document translation specification that has a French target.	

Answer:

Actions	Answer Area
Perform an asynchronous translation by using the list of files to be translated.	
Perform an asynchronous translation by using the document translation specification.	
Generate a list of files to be translated.	 
Upload a glossary file to the container for German files.	 
Upload a glossary file to the container for French files.	
Define a document translation specification that has a French target.	
Perform an asynchronous translation by using the list of files to be translated.	

Explanation:

1. Upload a Glossary file to the french files container
2. Define a document translation specification that has french target
3. Perform asynchronous translation by using the document specification

As you can see below the glossary is needed before the translation:

<https://learn.microsoft.com/en-us/azure/ai-services/translator/document-translation/how-to-guides/create-use-glossaries>

And DocumentTranslationInput is the class we can use for the translation:

<https://learn.microsoft.com/en-us/python/api/azure-ai-translation-document/azure.ai.translation.document.documenttranslationinput?view=azure-python>

```
static void MyFunction(TextAnalyticsClient textAnalyticsClient, string text)
{
    var response = textAnalyticsClient.ExtractKeyPhrases(text);
    Console.WriteLine("Key phrases:");

    foreach (string keyphrase in response.Value)
    {
        Console.WriteLine($"{keyphrase}");
    }
}
```

You call the function by using the following code.

```
MyFunction(textAnalyticsClient, "the quick brown fox jumps over the lazy dog");
```

Which output will you receive?

- A. The quick -
The lazy
- B. the quick brown fox jumps over the lazy dog
- C. jumps over the
- D. quick brown fox
lazy dog

Answer: D

Explanation:

Quick brown fox

lazy dog

Question: 147

AI-102

You have the following Python method.

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

You need to deploy an Azure resource to the East US Azure region. The resource will be used to perform sentiment analysis.

How should you call the method?

- A.create_resource("res1", "TextAnalytics", "Standard", "East US")
- B.create_resource("res1", "ContentModerator", "S0", "eastus")
- C.create_resource("res1", "ContentModerator", "Standard", "East US")
- D.create_resource("res1", "TextAnalytics", "S0", "eastus")

Answer: D

Explanation:

```
create_resource("res1", "TextAnalytics", "S0", "eastus").
```

Question: 148

AI-102: Actual Exam Q&A | CLEARCATNET

DRAG DROP

-

You develop a Python app named App1 that performs speech-to-speech translation.

You need to configure App1 to translate English to German.

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

NOTE: Each correct selection is worth one point.

Values

- add_target_language
- speech_synthesis_language
- speech_recognition_language
- voice_name

Answer Area

```
def translate_speech_to_text():

    translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_region)

    translation_config.  Value = "en-US";
    translation_config.  Value ("de");
```

Answer:

Values

- add_target_language
- speech_synthesis_language
- speech_recognition_language
- voice_name

Answer Area

```
def translate_speech_to_text():

    translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_re
    translation_config.  speech_recognition_language = "en-US";
    translation_config.  add_target_language ("de");
```

Explanation:

Speech_recognition_language

Add_target_language

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/get-started-speech-translation?tabs=windows%2Cterminal&pivots=programming-language-python#translate-speech-from-a-microphone>

Question: 149

AI-102

HOTSPOT

-

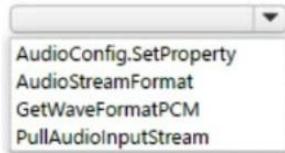
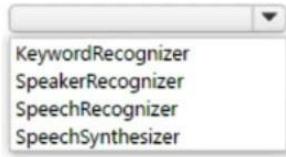
You are developing a streaming Speech to Text solution that will use the Speech SDK and MP3 encoding.

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

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

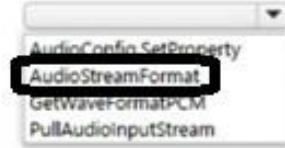
NOTE: Each correct selection is worth one point.

Answer Area

```
audio_format = speechsdk.audio.  
(compressed_stream_format=speechsdk.AudioStreamContainerFormat.MP3)  
  
stream = speechsdk.audio.PullAudioInputStream(stream_format=audio_format, pull_stream_callback=callback)  
speech_config = speechsdk.SpeechConfig("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus")  
audio_config = speechsdk.audio.AudioConfig(stream=stream)  
recognizer = speechsdk.  
(speech_config=speech_config, audio_config=audio_config)  
  
result = recognizer.recognize_once()  
text = result.text
```

Answer:

Answer Area

```
audio_format = speechsdk.audio.  
(compressed_stream_format=speechsdk.AudioStreamContainerFormat.MP3)  
  
stream = speechsdk.audio.PullAudioInputStream(stream_format=audio_format, pull_stream_callback=callback)  
speech_config = speechsdk.SpeechConfig("18c51a87-3a69-47a8-aedc-a54745f708a1", "westus")  
audio_config = speechsdk.audio.AudioConfig(stream=stream)  
recognizer = speechsdk.  
(speech_config=speech_config, audio_config=audio_config)  
  
result = recognizer.recognize_once()  
text = result.text
```

Explanation:

https://github.com/Azure-Samples/cognitive-services-speech-sdk/blob/master/samples/python/console/speech_sample.py

Question: 150

HOTSPOT -

You are developing a text processing solution.

AI-102

You develop the following method.

```
static void GetKeyPhrases(TextAnalyticsClient textAnalyticsClient, string text)
{
    var response = textAnalyticsClient.ExtractKeyPhrases(text);
    Console.WriteLine("Key phrases:");

    foreach (string keyphrase in response.Value)
    {
        Console.WriteLine($"\\t{keyphrase}");
    }
}
```

You call the method by using the following code.

```
GetKeyPhrases(textAnalyticsClient, "the cat sat on the mat");
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements

Yes No

The call will output key phrases from the input string to the console.

The output will contain the following words: the, cat, sat, on, and mat.

The output will contain the confidence level for key phrases.

Answer:

Answer Area

Statements

Yes No

The call will output key phrases from the input string to the console.

The output will contain the following words: the, cat, sat, on, and mat.

The output will contain the confidence level for key phrases.

Explanation:

Box 1: Yes -

The Key Phrase Extraction API evaluates unstructured text, and for each JSON document, returns a list of key phrases.

Box 2: No -

'the' is not a key phrase.

This capability is useful if you need to quickly identify the main points in a collection of documents. For example, given input text "The food was delicious and there were wonderful staff", the service returns the main talking points: "food" and "wonderful staff".

Box 3: No -

Key phrase extraction does not have confidence levels.

Reference:

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

Question: 151**AI-102: Actual Exam Q&A | CLEARCATNET**

You deploy a web app that is used as a management portal for indexing in Azure Cognitive Search. The app is configured to use the primary admin key.

During a security review, you discover unauthorized changes to the search index. You suspect that the primary access key is compromised.

You need to prevent unauthorized access to the index management endpoint. The solution must minimize downtime.

What should you do next?

- A. Regenerate the primary admin key, change the app to use the secondary admin key, and then regenerate the secondary admin key.
- B. Change the app to use a query key, and then regenerate the primary admin key and the secondary admin key.
- C. Regenerate the secondary admin key, change the app to use the secondary admin key, and then regenerate the primary key.
- D. Add a new query key, change the app to use the new query key, and then delete all the unused query keys.

Answer: C**Explanation:**

C is the answer.

<https://learn.microsoft.com/en-us/azure/search/search-security-api-keys?tabs=portal-use%2Cportal-find%2Cportal-query#regenerate-admin-keys>

Two admin keys are created for each service so that you can rotate a primary key while using the secondary key for business continuity.

- Under Settings, select Keys, then copy the secondary key.
- For all applications, update the API key settings to use the secondary key.
- Regenerate the primary key.
- Update all applications to use the new primary key.

The moment you see "Regenerate the primary admin key" as the first action you already know it violates the minimum downtime requirement. Answer A makes it even worse - the web app will stop working all together in the end as the web app will be using an invalid secondary admin key. For answer C, regenerating the secondary admin key seems redundant as you suspect only the primary access key is compromised but it's safer and meet the minimum downtime requirement anyway. As for answer B, it won't provide the required permissions to manage the indexes hence the app won't be functioning and this violates the requirement. This question requires you to really think it through or you might be tricked easily.

Question: 152**AI-102**

You have an existing Azure Cognitive Search service.

You have an Azure Blob storage account that contains millions of scanned documents stored as images and PDFs.

You need to make the scanned documents available to search as quickly as possible.

What should you do?

- A. Split the data into multiple blob containers. Create a Cognitive Search service for each container. Within each indexer definition, schedule the same runtime execution pattern.

- B. Split the data into multiple blob containers. Create an indexer for each container. Increase the search units. Within each indexer definition, schedule a sequential execution pattern.
- C. Create a Cognitive Search service for each type of document.
- D. Split the data into multiple virtual folders. Create an indexer for each folder. Increase the search units. Within each indexer definition, schedule the same runtime execution pattern.**

Answer: D

Explanation:

Incorrect Answers:

A: Need more search units to process the data in parallel.

B: Run them in parallel, not sequentially.

C: Need a blob indexer.

Note: A blob indexer is used for ingesting content from Azure Blob storage into a Cognitive Search index.

Index large datasets -

Indexing blobs can be a time-consuming process. In cases where you have millions of blobs to index, you can speed up indexing by partitioning your data and using multiple indexers to process the data in parallel. Here's how you can set this up:

- ☞ Partition your data into multiple blob containers or virtual folders
- ☞ Set up several data sources, one per container or folder.
- ☞ Create a corresponding indexer for each data source. All of the indexers should point to the same target search index.
- ☞ One search unit in your service can run one indexer at any given time. Creating multiple indexers as described above is only useful if they actually run in parallel.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-howto-indexing-azure-blob-storage>

Question: 153

AI-102: Actual Exam Q&A | CLEARCATNET

You need to implement a table projection to generate a physical expression of an Azure Cognitive Search index. Which three properties should you specify in the skillset definition JSON configuration table node? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. tableName
- B. generatedKeyName
- C. dataSource
- D. dataSourceConnection
- E. source

Answer: ABE

Explanation:

Defining a table projection.

Each table requires three properties:

- ☞ tableName: The name of the table in Azure Storage.
- ☞ generatedKeyName: The column name for the key that uniquely identifies this row.
- ☞ source: The node from the enrichment tree you are sourcing your enrichments from. This node is usually the output of a shaper, but could be the output of any of the skills.

Reference:

Question: 154

AI-102: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You are creating an enrichment pipeline that will use Azure Cognitive Search. The knowledge store contains unstructured JSON data and scanned PDF documents that contain text.

Which projection type should you use for each data type? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

JSON data:

File projection	▼
Object projection	▼
Table projection	▼

Scanned data:

File projection	▼
Object projection	▼
Table projection	▼

Answer:

Answer Area

JSON data:

File projection
Object projection
Table projection

Scanned data:

File projection
Object projection
Table projection

Explanation:

Box 1: Object projection -

Object projections are JSON representations of the enrichment tree that can be sourced from any node.

Box 2: File projection -

File projections are similar to object projections and only act on the normalized_images collection.

Reference:

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

Question: 155

AI-102

HOTSPOT -

You are building an Azure Cognitive Search custom skill.

You have the following custom skill schema definition.

```
{
  "@odata.type": "#Microsoft.Skills.Custom.WebApiSkill",
  "description": "My custom skill description",
  "uri": "https://contoso-webskill.azurewebsites.net/api/process",
  "context": "/document/organizations/*",
  "inputs": [
    {
      "name": "companyName",
      "source": "/document/organizations/*"
    }
  ],
  "outputs": [
    {
      "name": "companyDescription",
    }
  ]
}
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
CompanyDescription is available for indexing.	<input type="radio"/>	<input type="radio"/>
The definition calls a web API as part of the enrichment process.	<input type="radio"/>	<input type="radio"/>
The enrichment step is called only for the first organization under "/document/organizations".	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
CompanyDescription is available for indexing.	<input checked="" type="radio"/>	<input type="radio"/>
The definition calls a web API as part of the enrichment process.	<input checked="" type="radio"/>	<input type="radio"/>
The enrichment step is called only for the first organization under "/document/organizations".	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Box 1: Yes -

Once you have defined a skillset, you must map the output fields of any skill that directly contributes values to a given field in your search index.

Box 2: Yes -

The definition is a custom skill that calls a web API as part of the enrichment process.

Box 3: No -

For each organization identified by entity recognition, this skill calls a web API to find the description of that

organization.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-output-field-mapping>

Question: 156

AI-102: Actual Exam Q&A | CLEARCATNET

You have the following data sources:

- ⇒ Finance: On-premises Microsoft SQL Server database
- ⇒ Sales: Azure Cosmos DB using the Core (SQL) API
- ⇒ Logs: Azure Table storage

HR: Azure SQL database -

You need to ensure that you can search all the data by using the Azure Cognitive Search REST API. What should you do?

- A. Configure multiple read replicas for the data in Sales.
- B. **Mirror Finance to an Azure SQL database.**
- C. Ingest the data in Logs into Azure Data Explorer.
- D. Ingest the data in Logs into Azure Sentinel.

Answer: B

Explanation:

On-premises Microsoft SQL Server database cannot be used as an index data source.

Note: Indexer in Azure Cognitive Search: : Automate aspects of an indexing operation by configuring a data source and an indexer that you can schedule or run on demand. This feature is supported for a limited number of data source types on Azure.

Indexers crawl data stores on Azure.

- ⇒ Azure Blob Storage
- ⇒ Azure Data Lake Storage Gen2 (in preview)
- ⇒ Azure Table Storage
- ⇒ Azure Cosmos DB
- ⇒ Azure SQL Database
- ⇒ SQL Managed Instance
- ⇒ SQL Server on Azure Virtual Machines

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-indexer-overview#supported-data-sources>

Question: 157

AI-102: Actual Exam Q&A | CLEARCATNET

You are developing a solution to generate a word cloud based on the reviews of a company's products. Which Text Analytics REST API endpoint should you use?

- A. keyPhrases
- B. sentiment
- C. languages
- D. entities/recognition/general

Answer: A

Explanation:

keyPhrases

Word Cloud is a set of most frequently appeared words(actually an image)

<https://docs.microsoft.com/en-us/azure/cognitive-services/language-service/key-phrase-extraction/tutorials/integrate-power-bi#create-the-word-cloud>

The key phrases provide us with the important words from our customer comments, not just the most common words. Also, word sizing in the resulting cloud isn't skewed by the frequent use of a word in a relatively small number of comments.

Reference:

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

Question: 158

AI-102

DRAG DROP -

You have a web app that uses Azure Cognitive Search.

When reviewing billing for the app, you discover much higher than expected charges. You suspect that the query key is compromised.

You need to prevent unauthorized access to the search endpoint and ensure that users only have read only access to the documents collection. The solution must minimize app downtime.

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

Select and Place:

Actions

- Add a new query key.
- Regenerate the secondary admin key.
- Change the app to use the secondary admin key.
- Change the app to use the new key.
- Regenerate the primary admin key.
- Delete the compromised key.

Answer Area



Answer:

Actions

- Add a new query key.
- Regenerate the secondary admin key.
- Change the app to use the secondary admin key.
- Change the app to use the new key.
- Regenerate the primary admin key.
- Delete the compromised key.

Answer Area

- Regenerate the secondary admin key.
- Change the app to use the secondary admin key.
- Regenerate the primary admin key.

**Explanation:**

regenerated secondary key

change the app to use the secondary key

regenerated the primary key

Question: 159**AI-102: Actual Exam Q&A | CLEARCATNET**

You are developing an application that will use Azure Cognitive Search for internal documents.

You need to implement document-level filtering for Azure Cognitive Search.

Which three actions should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Send Azure AD access tokens with the search request.
- B. Retrieve all the groups.
- C. **Retrieve the group memberships of the user.**
- D. **Add allowed groups to each index entry.**
- E. Create one index per group.
- F. **Supply the groups as a filter for the search requests.**

Answer: CDF**Explanation:**

D: Add allowed groups to each index entry.

Your documents must include a field specifying which groups have access.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-security-trimming-for-azure-search#create-security-field>

C: You need to get the membership of the user

F. Supply the groups as a filter for the search requests.

"In order to trim documents based on group_ids access, you should issue a search query with a group_ids/any(g:search.in(g, 'group_id1, group_id2,...')) filter, where 'group_id1, group_id2,...' are the groups to which the search ##request issuer belongs##."

Reference:

Question: 160

AI-102: Actual Exam Q&A | CLEARCATNET

You have an Azure Cognitive Search solution and an enrichment pipeline that performs Sentiment Analysis on social media posts.
You need to define a knowledge store that will include the social media posts and the Sentiment Analysis results.
Which two fields should you include in the definition? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

- A. storageContainer
- B. **storageConnectionString**
- C. files
- D. tables
- E. objects

Answer: BE

Explanation:

BE is the answer.

<https://learn.microsoft.com/en-us/azure/search/knowledge-store-concept-intro?tabs=portal#knowledge-store-definition>

A knowledge store is defined inside a skillset definition and it has two components:

- A connection string to Azure Storage
- Projections that determine whether the knowledge store consists of tables, objects or files. The projections element is an array. You can create multiple sets of table-object-file combinations within one knowledge store.

Question: 161

AI-102: Actual Exam Q&A | CLEARCATNET

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 an Azure resource named solution12345678 that will index a sample database named realestate-us-sample. The solution must ensure that users can search the index in English for people, organizations, and locations.

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

Answer:

See explanation below.

Explanation:

 = admin@abc.com

Step 1 - Start the Import data wizard and create a data source

1. Sign in to the Azure portal with your Azure account.
2. Find your search service and on the Overview page, click Import data on the command bar to create and populate a search index.

The screenshot shows the 'Import data' wizard in the Microsoft Azure portal. At the top, there are tabs for 'Home', 'Microsoft.Search - Overview', 'my-new-search-service', and 'Import data'. Below the tabs, there are four buttons: 'Connect to your data' (underlined), 'Enrich content (Optional)', 'Customize target index', and 'Create an indexer'. A descriptive text explains that the wizard allows creating a search index from an existing Azure data source, mentioning Azure Cognitive Search and cognitive skills. Under 'Data Source', a dropdown menu is open, with 'Samples' highlighted by a red circle labeled '1'. Below the dropdown, there are two database entries: 'realestate-us-sample' and 'hotels-sample', each preceded by a small icon. The 'hotels-sample' entry is highlighted by a red circle labeled '2'.

3. In the wizard, click Connect to your data, and select the sample database named realestate-us-sample

Step 2 - Skip the "Enrich content" page

The wizard supports the creation of an AI enrichment pipeline for incorporating the Cognitive Services AI algorithms into indexing.

We'll skip this step for now, and move directly on to Customize target index.

Step 3 - Configure index -

The solution must ensure that users can search the index in English for people, organizations, and locations.

Configure Searchable for the fields people, organizations, and locations.

Import data

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

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 * [\(1\)](#)
hotels-sample-index

Key * [\(1\)](#)
HotellId

Suggester name [\(1\)](#)
sg

Search mode [\(1\)](#)

[Add field](#) [Add subfield](#) [Delete](#)

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

Reference:

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

Question: 162**AI-102**

HOTSPOT

You create a knowledge store for Azure Cognitive Search by using the following JSON.

```

"knowledgeStore": {
    "storageConnectionString": "DefaultEndpointsProtocol=https;AccountName=<Acct Name>;AccountKey=<Acct Key>;",
    "projections": [
        {
            "tables": [
                {
                    "tableName": "unrelatedDocument",
                    "generatedKeyName": "Documentid",
                    "source": "/document/pbiShape"
                },
                {
                    "tableName": "unrelatedKeyPhrases",
                    "generatedKeyName": "KeyPhraseid",
                    "source": "/document/pbiShape/keyPhrases"
                }
            ],
            "objects": [
            ],
            "files": []
        },
        {
            "tables": [],
            "objects": [
                {
                    "storageContainer": "unrelatedocrtext",
                    "source": null,
                    "sourceContext": "/document/normalized_images/*/text",
                    "inputs": [
                        {
                            "name": "ocrText",
                            "source": "/document/normalized_images/*/text"
                        }
                    ]
                },
                {
                    "storageContainer": "unrelatedocrlayout",
                    "source": null,
                    "sourceContext": "/document/normalized_images/*/layoutText",
                    "inputs": [
                        {
                            "name": "ocrLayoutText",
                            "source": "/document/normalized_images/*/layoutText"
                        }
                    ]
                }
            ],
            "files": []
        }
    ]
}

```

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

NOTE: Each correct selection is worth one point.

Answer Area

There will be [answer choice].

no projection groups
one projection group
two projection groups
four projection groups

Normalized images will [answer choice].

not be projected
be projected to Azure Blob storage
be projected to Azure File storage
be saved to an Azure Table storage

Answer:

Answer Area

There will be [answer choice].

no projection groups
one projection group
two projection groups
four projection groups

Normalized images will [answer choice].

not be projected
be projected to Azure Blob storage
be projected to Azure File storage
be saved to an Azure Table storage

Explanation:

<https://learn.microsoft.com/en-us/azure/search/knowledge-store-projection-example-long#relationships-among-table-object-and-file-projections>

If you don't want the data related, define the projections in different projection groups. For example, the following snippet will result in the tables being related, but without relationships between the tables and the object (OCR text) projections.

<https://learn.microsoft.com/en-us/azure/search/knowledge-store-projections-examples#define-a-file-projection>

File projections are always binary, normalized images, where normalization refers to potential resizing and rotation for use in skillset execution. File projections, similar to object projections, are created as blobs in Azure Storage, and contain binary data (as opposed to JSON).

Question: 163

AI-102: Actual Exam Q&A | **CLEARCATNET**

You plan to create an index for an Azure Cognitive Search service by using the Azure portal. The Cognitive Search service will connect to an Azure SQL database.

The Azure SQL database contains a table named UserMessages. Each row in UserMessages has a field named MessageCopy that contains the text of social media messages sent by a user.

Users will perform full text searches against the MessageCopy field, and the values of the field will be shown to the users.

You need to configure the properties of the index for the MessageCopy field to support the solution.

Which attributes should you enable for the field?

- A. Sortable and Retrievable
- B. Filterable and Retrievable
- C. Searchable and Facetable
- D. Searchable and Retrievable**

Answer: D

Explanation:

D is the answer.

<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.

Question: 164

AI-102

You have the following data sources:

- Finance: On-premises Microsoft SQL Server database
- Sales: Azure Cosmos DB using the Core (SQL) API
- Logs: Azure Table storage
- HR: Azure SQL database

You need to ensure that you can search all the data by using the Azure Cognitive Search REST API.

What should you do?

- A. Export the data in Finance to Azure Data Lake Storage.
- B. Configure multiple read replicas for the data in Sales.
- C. Ingest the data in Logs into Azure Data Explorer.
- D. Migrate the data in HR to Azure Blob storage.

Answer: A

Explanation:

<https://learn.microsoft.com/en-us/azure/search/search-indexer-overview#supported-data-sources>

Question: 165

AI-102

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

You plan to deploy the bot to Azure.

You register the bot by using the Bot Channels Registration service.

Which two values are required to complete the deployment? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. botId
- B. tenantId
- C. appId
- D. objectId
- E. appSecret

Answer: CE

Explanation:

Question: 166

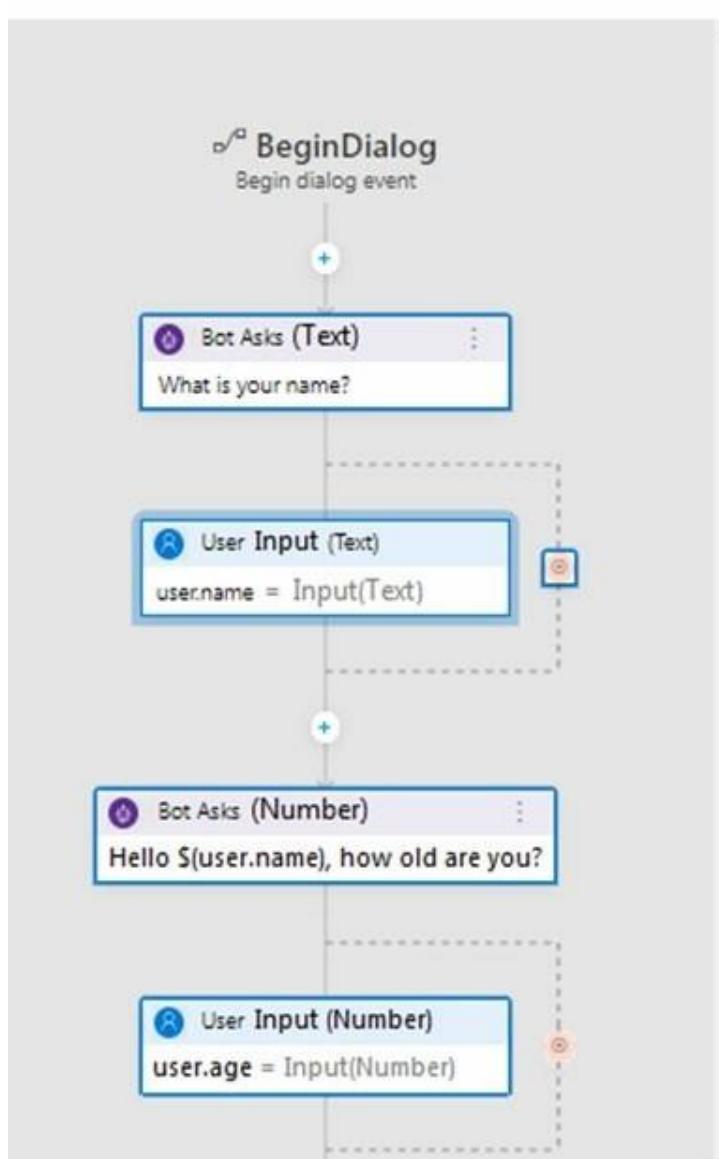
AI-102: Actual Exam Q&A | **CLEARCATNET**

HOTSPOT -

You are building a chatbot by using the Microsoft Bot Framework Composer.
 You have the dialog design shown in the following exhibit.

AskForName > BeginDialog > Text

Show code



Prompt for text

Text input

Collection information - Ask for a word or sentence.

[Learn more](#)

Bot Asks

User Input

Other

Property

string

user.name

Output Format

string

ex. =toUpperCase(this.value), \${toUpperCase(this.value)}

Value

expression

fx =coalesce(@user.Name,@personName)

Expected responses (intent:
#TextInput_Response_GH5FTe)

>

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements

Yes No

user.name is an entity.

The dialog asks for a user name and a user age and assigns appropriate values to the user.name and user.age properties.

The chatbot attempts to take the first non-null entity value for userName or personName and assigns the value to user.name.

Answer:

Answer Area

Statements	Yes	No
user.name is an entity.	<input type="radio"/>	<input checked="" type="radio"/>
The dialog asks for a user name and a user age and assigns appropriate values to the user.name and user.age properties.	<input checked="" type="radio"/>	<input type="radio"/>
The chatbot attempts to take the first non-null entity value for userName or personName and assigns the value to user.name.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box 1: No -

User.name is a property.

Box 2: Yes -

Box 3: Yes -

The coalesce() function evaluates a list of expressions and returns the first non-null (or non-empty for string) expression.

Reference:

<https://docs.microsoft.com/en-us/composer/concept-language-generation> <https://docs.microsoft.com/en-us/azure/data-explorer/kusto/query/coalesceffunction>

Question: 167

AI-102: Actual Exam Q&A | CLEARCATNET

You are building a multilingual chatbot.

You need to send a different answer for positive and negative messages.

Which two Language service APIs should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Linked entities from a well-known knowledge base
- B. **Sentiment Analysis**
- C. Key Phrases
- D. **Detect Language**
- E. Named Entity Recognition

Answer: BD

Explanation:

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

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

This capability is useful for content stores that collect arbitrary text, where language is unknown.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/how-tos/text-analytics-how-to-sentiment-analysis?tabs=version-3-1> <https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/ho>

Question: 168**AI-102: Actual Exam Q&A | CLEARCATNET**

DRAG DROP -

You plan to build a chatbot to support task tracking.

You create a Language Understanding service named lu1.

You need to build a Language Understanding model to integrate into the chatbot. The solution must minimize development time to build the model.

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

Select and Place:

Actions

Train the application.

Publish the application.

Add a new application.

Add example utterances.

Add the prebuilt domain ToDo.

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

Train the application.

Publish the application.

Add a new application.

Add example utterances.

Add the prebuilt domain ToDo.

Answer Area

Add a new application.

Add example utterances.

Train the application.

Publish the application.

Explanation:

Step 1: Add a new application -

Create a new app -

1. Sign in to the LUIS portal with the URL of <https://www.luis.ai>.
2. Select Create new app.
3. Etc.

Step 2: Add example utterances.

In order to classify an utterance, the intent needs examples of user utterances that should be classified with this intent.

Step 3: Train the application -

Step 4: Publish the application -

In order to receive a LUIS prediction in a chat bot or other client application, you need to publish the app to the prediction endpoint.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/tutorial-intents-only>

Question: 169

AI-102: Actual Exam Q&A | CLEARCATNET

You are building a bot on a local computer by using the Microsoft Bot Framework. The bot will use an existing Language Understanding model.

You need to translate the Language Understanding model locally by using the Bot Framework CLI.

What should you do first?

- A. From the Language Understanding portal, clone the model.
- B. Export the model as an .lu file.**
- C. Create a new Speech service.
- D. Create a new Language Understanding service.

Answer: B

Explanation:

You might want to manage the translation and localization for the language understanding content for your bot independently.

Translate command in the @microsoft/bf-lu library takes advantage of the Microsoft text translation API to automatically machine translate .lu files to one or more than 60+ languages supported by the Microsoft text translation cognitive service.

What is translated?

An .lu file and optionally translate

Comments in the lu file -

LU reference link texts -

List of .lu files under a specific path.

Reference:

<https://github.com/microsoft/botframework-cli/blob/main/packages/luis/docs/translate-command.md>

Question: 170

AI-102

DRAG DROP -

You are using a Language Understanding service to handle natural language input from the users of a web-based customer agent.

The users report that the agent frequently responds with the following generic response: "Sorry, I don't understand that."

You need to improve the ability of the agent to respond to requests.

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

Select and Place:

Actions**Answer Area**

Add prebuilt domain models as required.

Validate the utterances logged for review and modify the model.

Migrate authoring to an Azure resource authoring key.

Enable active learning.

Enable log collection by using Log Analytics.

Train and republish the Language Understanding model.

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

Add prebuilt domain models as required.

Enable active learning.

Validate the utterances logged for review and modify the model.

Validate the utterances logged for review and modify the model.

Migrate authoring to an Azure resource authoring key.

Train and republish the Language Understanding model.

Enable active learning.

Enable log collection by using Log Analytics.

Train and republish the Language Understanding model.

Explanation:

Step 1: : Enable active learning -

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

Step 2: . Validate the utterances logged for review and modify the model

Step 3: Train and republish the Language Understanding model

The process of reviewing endpoint utterances for correct predictions is called Active learning. Active learning captures endpoint queries and selects user's endpoint utterances that it is unsure of. You review these utterances to select the intent and mark entities for these real-world utterances. Accept these changes into your example utterances then train and publish. LUIS then identifies utterances more accurately.

Question: 171**AI-102: Actual Exam Q&A | CLEARCATNET**

You build a conversational bot named bot1.

You need to configure the bot to use a QnA Maker application.

From the Azure Portal, where can you find the information required by bot1 to connect to the QnA Maker application?

- A. Access control (IAM)
- B. Properties
- C. Keys and Endpoint**
- D. Identity

Answer: C**Explanation:**

Obtain values to connect your bot to the knowledge base

1. In the QnA Maker site, select your knowledge base.
2. With your knowledge base open, select the SETTINGS tab. Record the value shown for service name. This value is useful for finding your knowledge base of interest when using the QnA Maker portal interface. It's not used to connect your bot app to this knowledge base.
3. Scroll down to find Deployment details and record the following values from the Postman sample HTTP request:
4. POST /knowledgebases/<knowledge-base-id>/generateAnswer
5. Host: <your-host-url>
6. Authorization: EndpointKey <your-endpoint-key>

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-qna>

Question: 172**AI-102****HOTSPOT -**

You are building a chatbot for a Microsoft Teams channel by using the Microsoft Bot Framework SDK. The chatbot will use the following code.

```
protected override async Task OnMembersAddedAsync(IList<ChannelAccount>
membersAdded, ITurnContext<IConversationUpdateActivity> turnContext,
CancellationToken cancellationToken)
{
    foreach (var member in membersAdded)
        if (member.Id != turnContext.Activity.Recipient.Id)
            await turnContext.SendActivityAsync($"Hi there - {member.Name} .
{WelcomeMessage}", cancellationToken: cancellationToken);
}
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
OnMembersAddedAsync will be triggered when a user joins the conversation.	<input type="radio"/>	<input type="radio"/>
When a new user joins the conversation, the existing users in the conversation will see the chatbot greeting.	<input type="radio"/>	<input type="radio"/>
OnMembersAddedAsync will be initialized when a user sends a message.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
OnMembersAddedAsync will be triggered when a user joins the conversation.	<input checked="" type="checkbox"/>	<input type="radio"/>
When a new user joins the conversation, the existing users in the conversation will see the chatbot greeting.	<input type="radio"/>	<input checked="" type="checkbox"/>
OnMembersAddedAsync will be initialized when a user sends a message.	<input type="radio"/>	<input checked="" type="checkbox"/>

Explanation:

A1. Yes

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.bot.builder.activityhandler.onmembersaddedasync?view=botbuilder-dotnet-stable>

ActivityHandler.OnMembersAddedAsync(IList<ChannelAccount>,
ITurnContext<IConversationUpdateActivity>, CancellationToken)

Method invoked when members other than the bot join the conversation

A2. No

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.bot.builder.turncontext.sendactivityasync?view=botbuilder-dotnet-stable>

Sends a message activity to the sender of the incoming activity in turncontext

A3: No

<https://docs.microsoft.com/en-us/dotnet/api/microsoft.bot.builder.activityhandler.onconversationupdateactivityasync?view=botbuilder-dotnet-stable>

ActivityHandler.OnConversationUpdateActivityAsync(ITurnContext<IConversationUpdateActivity>,
CancellationToken)

Method invoked when a conversation update activity that indicates one or more users other than the bot are joining the conversation

You are reviewing the design of a chatbot. The chatbot includes a language generation file that contains the following fragment.

```
# Greet(user)
- $ Greeting() , $ user.name
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
\${user.name} retrieves the user name by using a prompt.	<input type="radio"/>	<input type="radio"/>
Greet () is the name of the language generation template.	<input type="radio"/>	<input type="radio"/>
\${Greeting () } is a reference to a template in the language generation file.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
\${user.name} retrieves the user name by using a prompt.	<input type="radio"/>	<input checked="" type="radio"/>
Greet () is the name of the language generation template.	<input checked="" type="radio"/>	<input type="radio"/>
\${Greeting () } is a reference to a template in the language generation file.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box 1: No -

Example: Greet a user whose name is stored in `user.name`

- \$ welcomeUser(user.name)

Example: Greet a user whose name you don't know:

- \$ welcomeUser()

Box 2: Yes-

<https://learn.microsoft.com/en-us/azure/bot-service/file-format/bot-builder-lg-file-format?view=azure-bot-service-4.0#template-names>

<https://learn.microsoft.com/en-us/azure/bot-service/file-format/bot-builder-lg-file-format?view=azure-bot-service-4.0#references-to-templates>

Variation text can include references to another named template to aid with composition and resolution of sophisticated responses. References to other named templates are denoted using braces, such as \$ <TemplateName>().

Box 3: Yes -

Reference:

<https://docs.microsoft.com/en-us/composer/how-to-ask-for-user-input>

Question: 174

AI-102: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You are building a chatbot by using the Microsoft Bot Framework SDK.

You use an object named UserProfile to store user profile information and an object named ConversationData to store information related to a conversation.

You create the following state accessors to store both objects in state. var userStateAccessors = _userState.CreateProperty<UserProfile>(nameof(UserProfile)); var conversationStateAccessors = _conversationState.CreateProperty<ConversationData>(nameof(ConversationData));

The state storage mechanism is set to Memory Storage.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
------------	-----	----

The code will create and maintain the UserProfile object in the underlying storage layer.

The code will create and maintain the ConversationData object in the underlying storage layer.

The UserProfile and ConversationData objects will persist when the Bot Framework runtime terminates.

Answer:

Answer Area

Statements	Yes	No
------------	-----	----

The code will create and maintain the UserProfile object in the underlying storage layer.

The code will create and maintain the ConversationData object in the underlying storage layer.

The UserProfile and ConversationData objects will persist when the Bot Framework runtime terminates.

Explanation:

Box 1: Yes -

You create property accessors using the CreateProperty method that provides a handle to the BotState object. Each state property accessor allows you to get or set the value of the associated state property.

Box 2: Yes -

Box 3: No -

Before you exit the turn handler, you use the state management objects' SaveChangesAsync() method to write all state changes back to storage.

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-v4-state>

AI-102: Actual Exam Q&A | CLEARCATNET

Question: 175

HOTSPOT -

You are building a chatbot that will provide information to users as shown in the following exhibit.

Passengers

Sarah Hum

Jeremy Goldberg

Evan Litvak

2 Stops

Tue, May 30, 2017 10:25 PM

San Francisco

Amsterdam



San Francisco

Amsterdam

SFO

AMS

SFO

AMS

Non-Stop

Fri, Jun 2, 2017 11:55 PM

San Francisco

Amsterdam



San Francisco

Amsterdam

SFO

AMS

SFO

AMS

Total

\$4,032.54

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The chatbot is showing [answer choice].

an Adaptive Card
a Hero Card
a Thumbnail Card

The card includes [answer choice].

an action set
an image
an image group
media

Answer:

Answer Area

The chatbot is showing [answer choice].

an Adaptive Card
a Hero Card
a Thumbnail Card

The card includes [answer choice].

an action set
an image
an image group
media

Explanation:

Box 1: Adaptive Card

<https://learn.microsoft.com/en-us/azure/bot-service/bot-service-design-user-experience?view=azure-bot-service-4.0#cards>

- AdaptiveCard

An open card exchange format rendered as a JSON object. Typically used for cross-channel deployment of cards. Cards adapt to the look and feel of each host channel.

Box 2: an image -

Question: 176

AI-102: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You are building a bot and that will use Language Understanding.

You have a LUDown file that contains the following content.

```
## Confirm
- confirm
- ok
- yes

## ExtractName
- call me steve !
- i am anna
- (i'm|i am) {@PersonName.Any}[.]
- my name is {@PersonName.Any}[.]

## Logout
- forget me
- log out

## SelectItem
- choose last
- choose the {@DirectionalReference=bottom left}
- choose {@DirectionalReference=top right}
- i like {@DirectionalReference=left} one

## SelectNone
- none

@ ml DirectionalReference
@ prebuilt personName
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

SelectItem is [answer choice].

a domain
an entity
an intent
an utterance

Choose {@DirectionalReference=top right} is [answer choice].

a domain
an entity
an intent
an utterance

Answer:

Answer Area

SelectItem is [answer choice].

a domain
an entity
an intent
an utterance

Choose {@DirectionalReference=top right} is [answer choice].

a domain
an entity
an intent
an utterance

Explanation:

1. intent
2. utterance

<https://learn.microsoft.com/en-us/azure/bot-service/file-format/bot-builder-lu-file-format?view=azure-bot-service-4.0#define-intents-using-sample-utterances>

Intents with their sample utterances are declared in the following way:

```
# <intent-name>
- <utterance1>
- <utterance2>
```

<intent-name> describes a new intent definition section. Each line after the intent definition are example

utterances that describe that intent using the - <utterance> format.

Reference:

<https://github.com/solliancenet/tech-immersion-data-ai/blob/master/ai-exp1/README.md>

Question: 177

AI-102: Actual Exam Q&A | **CLEARCATNET**

HOTSPOT -

You are designing a conversation flow to be used in a chatbot.

You need to test the conversation flow by using the Microsoft Bot Framework Emulator.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
user=User1  
bot=watchbot  
user: I want a new watch.
```

```
bot: [  ] [Delay=3000]  
Attachment  
ConversationUpdate  
Typing
```

```
bot: I can help you with that! Let me see what I can find.
```

```
bot: Here's what I found.
```

```
bot:
```

```
[AttachmentLayout=  ]  
adaptivecard  
carousel  
thumbnail
```

```
[Attachment=https://contoso.blob.core.windows.net/watch01.jpg]
```

```
[Attachment=https://contoso.blob.core.windows.net/watch02.jpg]
```

```
user: I like the first one.
```

```
bot: Sure, pulling up more information.
```

```
bot: [Attachment=cards\watchProfileCard.json  ]
```

```
user: That's nice! Thank you.
```

```
bot: Sure, you are most welcome!
```

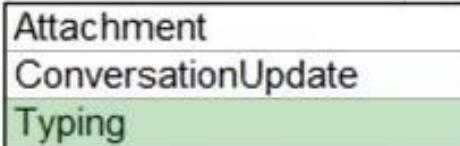
```
adaptivecard  
carousel  
list
```

Answer:

Answer Area

```
user=User1  
bot=watchbot  
user: I want a new watch.
```

```
bot: [ ] [Delay=3000]
```

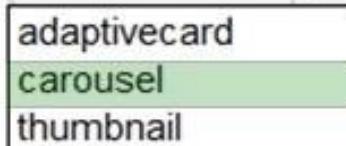


```
bot: I can help you with that! Let me see what I can find.
```

```
bot: Here's what I found.
```

```
bot:
```

```
[AttachmentLayout= ]
```



```
[Attachment=https://contoso.blob.core.windows.net/watch01.jpg]
```

```
[Attachment=https://contoso.blob.core.windows.net/watch02.jpg]
```

```
user: I like the first one.
```

```
bot: Sure, pulling up more information.
```

```
bot: [Attachment=cards\watchProfileCard.json
```

```
user: That's nice! Thank you.
```

```
bot: Sure, you are most welcome!
```



Explanation:

1. Typing
2. carousel
3. adaptivecard

<https://learn.microsoft.com/en-us/azure/bot-service/bot-service-design-user-experience?view=azure-bot-service-4.0#cards>

- CardCarousel

A horizontally scrollable collection of cards that allows your user to easily view a series of possible user choices.

- AdaptiveCard

An open card exchange format rendered as a JSON object. Typically used for cross-channel deployment of cards. Cards adapt to the look and feel of each host channel.

Reference:

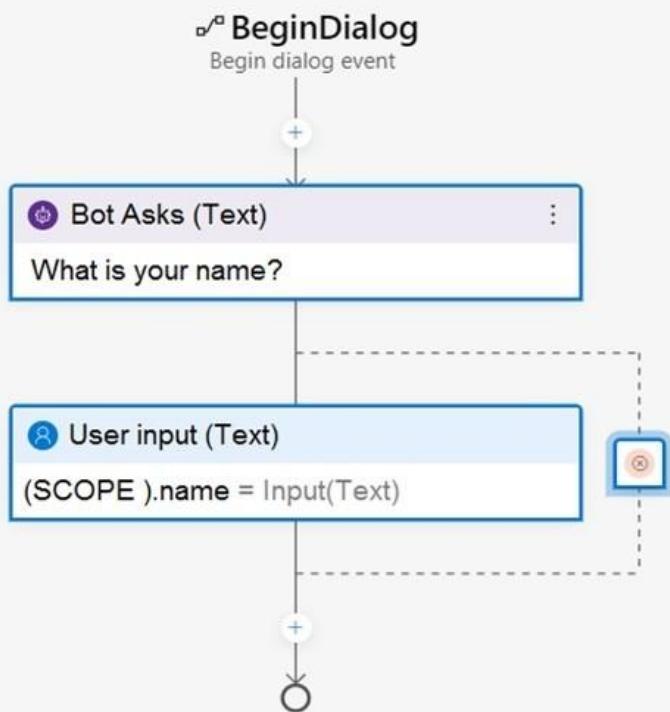
<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-add-media-attachments?view=azure-bot-service-4.0>

Question: 178**AI-102: Actual Exam Q&A | CLEARCATNET**

You are building a chatbot by using the Microsoft Bot Framework Composer as shown in the exhibit. (Click the Exhibit tab.)

GetUserDetails > BeginDialog > Text

Show code

**Prompt for text**

Text Input

Collection information - Ask for a word or sentence.

[Learn more](#)

Bot Asks

User input

Other

Property ?

string

(SCOPE).name

Output format ?

string

Value ?

string

Expected responses (intent :

#TextInput_Response_FuvyF4)

The chatbot contains a dialog named GetUserDetails. GetUserDetails contains a TextInput control that prompts users for their name.

The user input will be stored in a property named name.

You need to ensure that you can dispose of the property when the last active dialog ends.

Which scope should you assign to name?

- A. dialog
- B. user
- C. turn
- D. conversation

Answer: A**Explanation:**

The dialog scope associates properties with the active dialog. Properties in the dialog scope are retained until the dialog ends.

Incorrect Answers:

A: The conversation scope associates properties with the current conversation. Properties in the conversation scope have a lifetime of the conversation itself.

These properties are in scope while the bot is processing an activity associated with the conversation (for example, multiple users together in a Microsoft Teams channel).

B: The user scope associates properties with the current user. Properties in the user scope do not expire.

These properties are in scope while the bot is processing an activity associated with the user.

C: The turn scope associates properties with the current turn. Properties in the turn scope expire at the end of the turn.

Reference:

<https://docs.microsoft.com/en-us/composer/concept-memory?tabs=v2x>

Question: 179

AI-102: Actual Exam Q&A | CLEARCATNET

DRAG DROP -

You have a chatbot that uses a QnA Maker application.

You enable active learning for the knowledge base used by the QnA Maker application.

You need to integrate user input into the model.

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

Select and Place:

Actions

Answer Area

Add a task to the Azure resource.

Approve and reject suggestions.

Publish the knowledge base.

Modify the automation task logic app to run an Azure Resource Manager template that creates the Azure Cognitive Services resource.

For the knowledge base, select Show active learning suggestions.

Save and train the knowledge base.

Select the properties of the Azure Cognitive Services resource.



Answer:

Actions

Add a task to the Azure resource.

Answer Area

For the knowledge base, select Show active learning suggestions.

Approve and reject suggestions.

Save and train the knowledge base.

Modify the automation task logic app to run an Azure Resource Manager template that creates the Azure Cognitive Services resource.



Publish the knowledge base.



Select the properties of the Azure Cognitive Services resource.

Explanation:

Step 1: For the knowledge base, select Show active learning suggestions.

In order to see the suggested questions, on the Edit knowledge base page, select View Options, then select Show active learning suggestions.

Step 2: Approve and reject suggestions.

Each QnA pair suggests the new question alternatives with a check mark, , to accept the question or an x to reject the suggestions. Select the check mark to

"

add the question.

Step 3: Save and train the knowledge base.

Select Save and Train to save the changes to the knowledge base.

Step 4: Publish the knowledge base.

Select Publish to allow the changes to be available from the GenerateAnswer API.

When 5 or more similar queries are clustered, every 30 minutes, QnA Maker suggests the alternate questions for you to accept or reject.

Reference:

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

Question: 180

AI-102

You need to enable speech capabilities for a chatbot.

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

NOTE: Each correct selection is worth one point.

A. Enable WebSockets for the chatbot app.

- B. Create a Speech service.
- C. Register a Direct Line Speech channel.
- D. Register a Cortana channel.
- E. Enable CORS for the chatbot app.
- F. Create a Language Understanding service.

Answer: ABC

Explanation:

A, B and C are correct answers in order shown below.

B. Create a Speech service

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/tutorial-voice-enable-your-bot-speech-sdk#create-a-speech-service-resource>

A. Enable WebSockets for the chatbot app

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/tutorial-voice-enable-your-bot-speech-sdk#enable-web-sockets>

C. Register a Direct Line Speech channel

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/tutorial-voice-enable-your-bot-speech-sdk#register-the-direct-line-speech-channel>

Question: 181

AI-102: Actual Exam Q&A | CLEARCATNET

You use the Microsoft Bot Framework Composer to build a chatbot that enables users to purchase items. You need to ensure that the users can cancel in-progress transactions. The solution must minimize development effort.

What should you add to the bot?

- A. a language generator
- B. a custom event
- C. a dialog trigger
- D. a conversation activity

Answer: C

Explanation:

C is the answer.

<https://learn.microsoft.com/en-us/composer/concept-events-and-triggers?tabs=v2x>

In Bot Framework Composer, each dialog includes one or more event handlers called triggers. Each trigger contains one or more actions. Actions are the instructions that the bot will execute when the dialog receives any event that it has a trigger defined to handle. Once a given event is handled by a trigger, no further action is taken on that event. Some event handlers have a condition specified that must be met before it will handle the event and if that condition isn't met, the event is passed to the next event handler. If an event isn't handled in a child dialog, it gets passed up to its parent dialog to handle and this continues until it's either handled or reaches the bot's main dialog. If no event handler is found, it will be ignored and no action will be taken.

Question: 182

AI-102: Actual Exam Q&A | CLEARCATNET

SIMULATION -

You need to create and publish a bot that will use Language Understanding and QnA Maker. The bot must be named bot12345678. You must publish the bot by using the account.

NOTE: Complete this task first. It may take several minutes to complete the required deployment steps. While this is taking place, you can complete tasks 2-6 in this lab during the deployment.

To complete this task, use the Microsoft Bot Framework Composer.

Answer:

See explanation below.

Explanation:

 = admin@abc.com

Step 1: Sign in to the QnAMaker.ai portal with your Azure credentials. Use the account

Step 2: Publish the knowledge base. In the QnA Maker portal, select Publish. Then to confirm, select Publish on the page.

The QnA Maker service is now successfully published. You can use the endpoint in your application or bot code.

Success! Your service has been deployed. What's next?

You can always find the deployment details in your service's settings.

[Create Bot](#)

[View all your bots on the Azure Portal.](#)

Use the below HTTP request to call your Knowledgebase. [Learn more.](#)

[Postman](#) [Curl](#)

```
POST /knowledgebases/ <knowledge-base-ID> /generateAnswer
Host: https://so-15indexes.azurewebsites.net/qnamaker
Authorization: EndpointKey <Authorization-key>
Content-Type: application/json
{"question":<Your question>"}
```

Need to fine-tune and refine? Go back and keep editing your service.

[Edit Service](#)

Step 3: In the QnA Maker portal, on the Publish page, select Create bot.

This button appears only after you've published the knowledge base.

After publishing the knowledge base, you can create a bot from the Publish page.

Success! Your service has been deployed. What's next?

You can always find the deployment details in your service's settings.

[Create Bot](#)

[View all your bots on the Azure Portal.](#)

Use the below HTTP request to call your Knowledgebase. [Learn more.](#)

Postman Curl

```
POST /knowledgebases/ <knowledge-base-ID> /generateAnswer
Host: https://so-15indexes.azurewebsites.net/qnamaker
Authorization: EndpointKey <Authorization-key>
Content-Type: application/json
{"question":<Your question>"}
```

Need to fine-tune and refine? Go back and keep editing your service.

[Edit Service](#)

Step 4: A new browser tab opens for the Azure portal, with the Azure Bot Service's creation page. Configure the Azure bot service.

Bot name: bot12345678 -

The bot will be created.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/quickstarts/create-publish-knowledge-base>

Question: 183

AI-102

SIMULATION -

You need to create a QnA Maker service named QNA12345678 in the East US Azure region. QNA12345678 must contain a knowledge base that uses the questions and answers available at <https://support.microsoft.com/en-us/help/12435/windows-10-upgrade-faq>.

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

Answer:

See explanation below.

Explanation:

Step 1: Sign in to the Azure portal create and a QnA Maker resource.

Microsoft Azure



Sign in

to continue to Microsoft Azure

Email, phone, or Skype

No account? Create one!

Can't access your account?

Next

Step 2: Select Create after you read the terms and conditions:



Microsoft's QnAMaker is a Cognitive Service tool that uses your existing content to build and train a simple question and answer bot that responds to users in a natural, conversational way. QnA Maker ingests FAQ URLs, structured documents, and product manuals, extracts all possible question and answer pairs from the content.

A common challenge for most informational Bot scenarios is to separate out the content management from the Bot design and development, as content owners are usually domain experts who may not be technical. QnAMaker addresses this by enabling a no-code QnA management experience.

QnA Maker allows you to edit, remove, or add QnA pairs with an easy-to-use interface, then publish your knowledge base as an API endpoint for a bot service. It's simple to text and train the bot using a familiar chat interface, and the active learning feature automatically learns questions variations from users over time and adds them to your knowledge base. Use the QnA Maker endpoint to seamlessly integrate with other APIs like Language Understanding service and Speech APIs to interpret and answer user questions in different ways.

Legal Notice

Microsoft will use data you send to the Cognitive Services to improve Microsoft products and services. For example, we will use content that you provide to the Cognitive Services to improve

Create

Step 3: In QnA Maker, select the appropriate tiers and regions.

Name: QNA12345678 -

In the Name field, enter a unique name to identify this QnA Maker service. This name also identifies the QnA Maker endpoint that your knowledge bases will be associated with.

Resource Group Location: East US Azure

Create



QnA Maker

* Name

myqnamakerservice



* Subscription

team



* Pricing tier (View full pricing details)

F0 (3 managed documents per month, 3 tr...)



* Resource group

(New) myqnamakerservice



Create new

* Resource group location

(US) Central US



* Search pricing tier (View full pricing details)

B (15 Indexes)



* Search location

West US



* App name

myqnamakerservice



.azurewebsites.net

The App service plan currently defaults to standard(S1) tier. It can be modified by visiting the app service plan resource page once the resource has been created.

* Website location

West US



App insights

Enable

Disable

Step 4: After all the fields are validated, select Create. The process can take a few minutes to complete.

After deployment is completed, you'll see the following resources created in your subscription:

Remember your Azure Active Directory ID, Subscription, QnA resource name you selected when you created the resource.

Step 5: When you are done creating the resource in the Azure portal, return to the QnA Maker portal, refresh the browser page.

Step 6: In the QnA Maker portal, select Create a knowledge base.

Step 7: Skip Step 1 as you already have your QnA Maker resource.

Step 8: In Step 2, select your Active directory, subscription, service (resource), and the language for all knowledge bases created in the service.

Azure QnA service: QNA12345678 -

STEP 2 Connect your QnA service to your KB.

After you create an Azure QnA service, refresh this page and then select your Azure service using the options below

Refresh

* Microsoft Azure Directory ID

Microsoft

* Azure subscription name

documentationteam

* Azure QnA service

qna-maker-10

* Language

English

Step 9: In Step 3, name your knowledge base

Step 10: In Step 4, configure the following setting:

+ Add URL: <https://support.microsoft.com/en-us/help/12435/windows-10-upgrade-faq>

Step 11: In Step 5, Select Create your KB.

The extraction process takes a few moments to read the document and identify questions and answers.

After QnA Maker successfully creates the knowledge base, the Knowledge base page opens.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/set-up-qnamaker-service-azure>

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/quickstarts/create-publish-knowledge-base>

Question: 184**AI-102: Actual Exam Q&A | CLEARCATNET****SIMULATION -**

You need to add a question pair to the published knowledge base used by a QnA Maker service named QNA12345678. The question must be: 'What will be the next version of Windows?'

The answer must be: 'Windows 11'.

To complete this task, sign in to the QnA Maker portal.

Answer:

Answer: Windows 11

Explanation:

Step 1: Sign in to the QnA portal, then select the knowledge base to add the QnA pair to.

Step 2: On the EDIT page of the knowledge base, select Add QnA pair to add a new QnA pair.

Knowledge base

Question	Answer
How do I get the Surface Pro repaired?	Repairing the Surface Pro requires...

Step 3: In the new QnA pair row, add the required question and answer fields. The other fields are optional. All fields can be changed at any time.

Question: What will be the next version of Windows?

Step 4: Select Save and train to see predictions including the new QnA pair.

Reference:

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

Question: 185**AI-102: Actual Exam Q&A | CLEARCATNET****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 have a bot that was developed by using the Microsoft Bot Framework SDK. The bot is available at an endpoint of <https://bot.contoso.com/api/messages>.

You need to create an Azure Bot named bot12345678 that connects to the bot.

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

Answer:

See explanation below.

Explanation:

 = admin@abc.com

Create the resource -

Create the Azure Bot resource, which will allow you to register your bot with the Azure Bot Service.

1. Go to the Azure portal.
2. In the right pane, select Create a resource.
3. In the search box enter bot, then press Enter.
4. Select the Azure Bot card.



Azure Bot

Microsoft

Azure Service

Build enterprise-grade conversational AI experiences with Bot Framework Composer or SDK.

Create ▼



5. Select Create.
6. Enter values in the required fields. Choose which type of app to create and whether to use existing or create new identity information.

Pricing

Select a pricing tier for your Azure Bot resource. You can change your selection later in the Azure portal's resource management. Learn more about available options, or request a pricing quote, by visiting the [Azure Bot Services pricing](#)

Pricing tier *

Standard

[Change plan](#)

Microsoft App ID

A Microsoft App ID is required to create an Azure Bot resource. If your bot app doesn't need to access resources outside of its home tenant and if your bot app will be hosted on an Azure resource that supports Managed Identities, then choose option User-Assigned Managed Identity so that Azure takes care of managing the App credentials for you. Otherwise, depending on whether your bot will be accessing resources only in it's home tenant or not, choose either Single tenant or Multi tenant option respectively.

Type of App

User-Assigned Managed Identity

 Note: For User-Assigned Managed Identity and Single Tenant app, Azure Portal's "Open in Composer" link is not yet supported for bots with these app types. BotFramework SDK (C# or Javascript) version 4.15.0 or higher is needed for these app types.

A User-assigned managed identity can be automatically created below or you can manually create your own, then return to input your new App ID, tenant ID and MSI resource ID in the open fields.

[Manually create a User Managed Identity](#)

Creation type

- Create new Microsoft App ID
 Use existing app registration

7. Select Review + create.
8. If the validation passes, select Create.
9. Once the deployment completes, select Go to resource. You should see the bot and related resources listed in the resource group you selected.
10. Enter the endpoint of the Bot Framework SDK: <https://bot.contoso.com/api/messages>

Reference:

<https://docs.microsoft.com/en-us/azure/bot-service/abs-quickstart?view=azure-bot-service-4.0&tabs=userassigned>

Question: 186

AI-102

You are designing a conversational interface for an app that will be used to make vacation requests. The interface must gather the following data:

- The start date of a vacation
- The end date of a vacation
- The amount of required paid time off

The solution must minimize dialog complexity.

Which type of dialog should you use?

- A.adaptive
- B.skill
- C.waterfall**
- D.component

Answer: C

Explanation:

C. waterfall

A waterfall dialog is a type of dialog that guides the user through a series of steps or prompts in a specific order. This makes it a good choice for gathering a set of related data points, like the start date, end date, and amount of required paid time off for a vacation request. By using a waterfall dialog, you can ensure that all necessary information is collected in a structured and predictable manner, which can help minimize dialog complexity.

Option A, adaptive dialog, is a more flexible type of dialog that can handle more complex and dynamic conversation flows, but it might be overkill for this relatively straightforward data-gathering task. Option B, skill dialog, is used to manage the invocation of a bot skill, which is not relevant to this scenario. Option D, component dialog, is a reusable dialog that encapsulates its own state, but it doesn't inherently simplify the dialog structure.

Question: 187

AI-102

DRAG DROP

-

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

You need to test the bot interactively on a local machine.

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

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

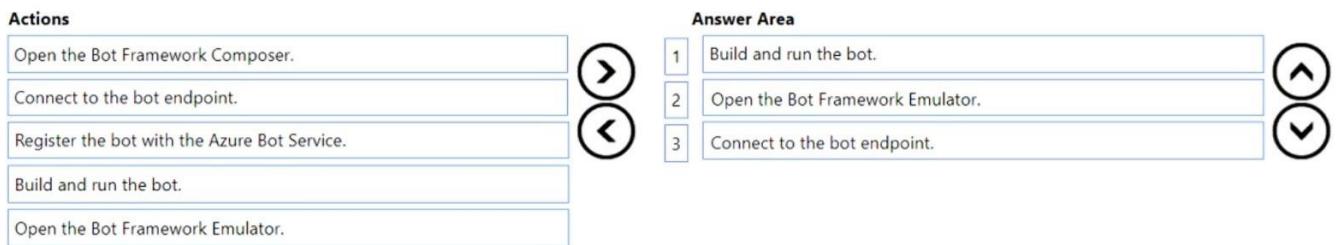
Actions

- Open the Bot Framework Composer.
- Connect to the bot endpoint.
- Register the bot with the Azure Bot Service.
- Build and run the bot.
- Open the Bot Framework Emulator.

Answer Area

1		▲
2		▼
3		

Answer:



Explanation:

1. Build and run the bot
2. Open Bot Framework Emulator
3. Connect to bot endpoint

<https://learn.microsoft.com/en-us/azure/bot-service/bot-service-debug-emulator?view=azure-bot-service-4.0&tabs=csharp#run-a-bot-locally>

Before connecting your bot to the Bot Framework Emulator, you need to run your bot locally.

Question: 188

AI-102

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

You need to configure the bot to respond to events by using custom text responses.

What should you use?

- A. a dialog
- B. an activity handler
- C. an adaptive card
- D. a skill

Answer: B

Explanation:

B. An activity handler is the correct choice for configuring the bot to respond to events by using custom text responses. An activity handler is a class in the Bot Framework SDK that processes incoming activities (e.g., messages, events, etc.) from the user and generates outgoing activities (e.g., replies). By overriding the `OnMessageActivityAsync` method of the activity handler, you can provide custom logic for responding to user messages.

Question: 189

AI-102

HOTSPOT

-

You build a bot named app1 by using the Microsoft Bot Framework.

You prepare app1 for deployment.

You need to deploy app1 to Azure.

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

NOTE: Each correct selection is worth one point.

Answer Area

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
<input type="checkbox"/> bot	<input type="checkbox"/> config	
<input type="checkbox"/> functionapp	<input type="checkbox"/> config-local-git	
<input type="checkbox"/> vm	<input type="checkbox"/> config-zip	
<input type="checkbox"/> webapp		

Answer:

Answer Area

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
<input type="checkbox"/> bot	<input type="checkbox"/> config	
<input type="checkbox"/> functionapp	<input type="checkbox"/> config-local-git	
<input type="checkbox"/> vm	<input type="checkbox"/> config-zip	
<input checked="" type="checkbox"/> webapp		

Explanation:

webapp

config-zip

See command

az webapp deployment source config-zip --resource-group "<resource-group-name>" --name "<name-of-app-service>" --src "<project-zip-path>"

at <https://learn.microsoft.com/en-us/azure/bot-service/provision-and-publish-a-bot?view=azure-bot-service-4.0&tabs=userassigned%2Ccsharp#publish-your-bot-to-azure>

Question: 190

AI-102: Actual Exam Q&A | CLEARCATNET

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

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

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you change the chitchat source to qna_chitchat_friendly.tsv, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

No, changing the chitchat source to "qna_chitchat_friendly.tsv" and retraining and republishing the model will not necessarily meet the goal of ensuring that the chatbot provides formal responses to spurious questions.

The "qna_chitchat_friendly.tsv" file is a source file for casual chitchat, which includes conversational responses for informal topics, such as hobbies and movies. This file is not designed to provide formal responses to spurious questions. Therefore, changing the source file to this file and retraining the model will not necessarily improve the formality of responses to spurious questions.

Question: 191

AI-102: Actual Exam Q&A | CLEARCATNET

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

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

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you modify the question and answer pairs for the custom intents, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

No, this solution does not meet the goal.

The formality of responses to spurious questions is not controlled by modifying the question and answer pairs for the custom intents in Language Studio. These pairs are used to train the model to understand and respond to specific intents, not to control the tone or formality of the responses.

To ensure that the chatbot provides formal responses to spurious questions, you would need to adjust the chatbot's response templates or scripts, not the question and answer pairs for the custom intents. This might involve programming the chatbot to use more formal language in its responses, or to respond to unrecognized or spurious inputs with a standard, formal message.

Question: 192

AI-102

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

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

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you change the chitchat source to qna_chitchat_professional.tsv, and then retrain and republish the model.

Does this meet the goal?

A.Yes

B.No

Answer: A

Explanation:

Yes, changing the chitchat source to "qna_chitchat_professional.tsv" and retraining and republishing the model can meet the goal of ensuring that the chatbot provides formal responses to spurious questions. The "qna_chitchat_professional.tsv" file is a source file for professional chitchat, which includes conversational responses for formal topics, such as business and finance. This file is designed to provide more formal responses to chitchat questions, so changing the source file to this file and retraining the model can improve the formality of responses to spurious questions.

Question: 193

AI-102: Actual Exam Q&A | CLEARCATNET

You create five bots by using Microsoft Bot Framework Composer.

You need to make a single bot available to users that combines the bots. The solution must support dynamic routing to the bots based on user input.

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

NOTE: Each correct selection is worth one point.

- A. Create a composer extension.
- B. Change the Recognizer/Dispatch type.
- C. Create an Orchestrator model.
- D. Enable WebSockets.
- E. Create a custom recognizer JSON file.
- F. Install the Orchestrator package.

Answer: BCF

Explanation:

To make a single bot available to users that combines the bots and supports dynamic routing to the bots based on user input, the following three actions should be performed:

- B. Change the Recognizer/Dispatch type: The Recognizer/Dispatch type should be changed to enable the bot to recognize user input and dispatch it to the appropriate bot.
- C. Create an Orchestrator model: An Orchestrator model should be created to handle the routing of user input to the appropriate bot.

F. Install the Orchestrator package: The Orchestrator package should be installed to provide the bot with the necessary functionality to route user input to the appropriate bot.

Therefore, options B, C, and F are the correct answers.

Question: 194

AI-102: Actual Exam Q&A | CLEARCATNET

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

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

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you add alternative phrasing to the question and answer pair, and then retrain and republish the model.

Does this meet the goal?

A.Yes

B.No

Answer: A

Explanation:

A is the answer.

<https://learn.microsoft.com/en-us/azure/cognitive-services/language-service/question-answering/concepts/best-practices#when-should-you-add-alternate-questions-to-question-and-answer-pairs>

Question: 195

AI-102

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

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

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you enable chit-chat, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

No, changing the chitchat source to "qna_chitchat_friendly.tsv" and retraining and republishing the model will not necessarily meet the goal of ensuring that the chatbot provides formal responses to spurious questions.

The "qna_chitchat_friendly.tsv" file is a source file for casual chitchat, which includes conversational responses for informal topics, such as hobbies and movies. This file is not designed to provide formal responses to spurious questions. Therefore, changing the source file to this file and retraining the model will not necessarily improve the formality of responses to spurious questions.

Question: 196

AI-102: Actual Exam Q&A | **CLEARCATNET**

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

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

You are building a chatbot that will use question answering in Azure Cognitive Service for Language.

You have a PDF named Doc1.pdf that contains a product catalogue and a price list.

You upload Doc1.pdf and train the model.

During testing, users report that the chatbot responds correctly to the following question: What is the price of ?

The chatbot fails to respond to the following question: How much does cost?

You need to ensure that the chatbot responds correctly to both questions.

Solution: From Language Studio, you create an entity for price, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

No

Creating an entity for price and retraining the model in Language Studio is not the correct approach to solve the issue with Azure Cognitive Service for Language's question-answering capabilities.

Instead, you should use Language Studio to create and train a synonym for the term "price" or build a more comprehensive list of question variations that the chatbot should be able to handle. For example, you can include phrases like "How much does it cost?" or "What is the cost of?" to ensure the model can properly recognize and respond to different ways users might ask about the price. Retrain and republish the model after making these changes to improve the chatbot's ability to answer both questions correctly.

Question: 197

AI-102: Actual Exam Q&A | CLEARCATNET

You have a Conversational Language Understanding model.

You export the model as a JSON file. The following is a sample of the file.

```
{  
    "text": "average amount of rain by month in Chicago last year",  
    "intent": "Weather.CheckWeatherValue",  
    "entities": [  
        {  
            "entity": "Weather.WeatherRange",  
            "startPos": 0,  
            "endPos": 6,  
            "children": []  
        },  
        {  
            "entity": "Weather.WeatherCondition",  
            "startPos": 18,  
            "endPos": 21,  
            "children": []  
        },  
        {  
            "entity": "Weather.Historic",  
            "startPos": 23,  
            "endPos": 30,  
            "children": []  
        }  
    ]  
}
```

What represents the Weather.Historic entity in the sample utterance?

- A. last year
- B. by month
- C. amount of
- D. average

Answer: B

Explanation:

by month

Question: 198

AI-102

You are building a chatbot by using Microsoft Bot Framework Composer.

You need to configure the chatbot to present a list of available options. The solution must ensure that an image is provided for each option.

Which two features should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. an entity
- B. an Azure function
- C. an utterance
- D. an adaptive card
- E. a dialog

Answer: DE

Explanation:

- D.an adaptive card
- E.a dialog

Question: 199

AI-102

You are building a chatbot.

You need to configure the bot to guide users through a product setup process.

Which type of dialog should you use?

- A.component
- B.action
- C.waterfall
- D.adaptive

Answer: C

Explanation:

C is the answer.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-concept-dialog?view=azure-bot-service-4.0#dialog-types>

The dialogs library provides a few types of dialogs to make your bot's conversations easier to manage.

- waterfall dialog

Defines a sequence of steps, allowing your bot to guide a user through a linear process. These are typically designed to work within the context of a component dialog.

Question: 200

AI-102: Actual Exam Q&A | CLEARCATNET

You have a chatbot that was built by using Microsoft Bot Framework and deployed to Azure.

You need to configure the bot to support voice interactions. The solution must support multiple client apps.

Which type of channel should you use?

- A.Cortana
- B.Microsoft Teams
- C.Direct Line Speech**

Answer: C

Explanation:

C is the answer.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-service-channel-directline?view=azure-bot-service-4.0>

The Bot Framework offers multiple channels with the Direct Line branding. It's important that you select the version that best fits the conversational AI experience you're designing.

- Direct Line Speech. It provides text-to-speech and speech-to-text services within the channel. It allows a client to stream audio directly to the channel which will then be converted to text and sent to the bot. Direct Line Speech can also convert text messages from the bot into audio messages spoken by an AI-powered voice. Combined, this makes Direct Line Speech capable of having audio only conversations with clients.

Question: 201

AI-102

You are building a bot by using Microsoft Bot Framework.

You need to configure the bot to respond to spoken requests. The solution must minimize development effort.

What should you do?

- A.Deploy the bot to Azure and register the bot with a Direct Line Speech channel.**
- B.Integrate the bot with Cortana by using the Bot Framework SDK.
- C.Create an Azure function that will call the Speech service and connect the bot to the function.
- D.Deploy the bot to Azure and register the bot with a Microsoft Teams channel.

Answer: A

Explanation:

A. Deploy the bot to Azure and register the bot with a Direct Line Speech channel.

The Direct Line Speech channel in Azure Bot Service provides an integrated speech and bot experience. It combines the Bot Framework's Direct Line and Speech services into a single service that enables your bot to speak and listen to users. This is the simplest way to enable your bot to respond to spoken requests, as it doesn't require additional coding or integration with other services.

Question: 202

AI-102: Actual Exam Q&A | CLEARCATNET

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

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

You have a chatbot that uses question answering in Azure Cognitive Service for Language.

Users report that the responses of the chatbot lack formality when answering spurious questions.

You need to ensure that the chatbot provides formal responses to spurious questions.

Solution: From Language Studio, you remove all the chit-chat question and answer pairs, and then retrain and republish the model.

Does this meet the goal?

A.Yes

B.No

Answer: B

Explanation:

Removing all chitchat QA pairs will not solve the problem of lack of formality.

To solve the issue, change the chitchat source to qna_chitchat_professional.tsv

Check out <https://learn.microsoft.com/en-us/azure/ai-services/language-service/question-answering/concepts/best-practices#choosing-a-personality>

Question: 203

AI-102

HOTSPOT

-

You are building a chatbot.

You need to use the Content Moderator service to identify messages that contain sexually explicit language.

Which section in the response from the service will contain the category score, and which category will be assigned to the message? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Section:

Classification
pii
Terms

Category:

1
2
3

Answer:

Answer Area

Section:

Classification
pii
Terms

Category:

1
2
3

Explanation:

1. Classification
2. 1

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

Content Moderator's machine-assisted text classification feature supports English only, and helps detect potentially undesired content. The flagged content may be assessed as inappropriate depending on context. It conveys the likelihood of each category. The feature uses a trained model to identify possible abusive, derogatory or discriminatory language. This includes slang, abbreviated words, offensive, and intentionally misspelled words.

Category1 refers to potential presence of language that may be considered sexually explicit or adult in certain situations.

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

Question: 204

AI-102

You are building a chatbot for a travel agent. The bot will ask users for a destination and must repeat the question until a valid input is received, or the user closes the conversation.

Which type of dialog should you use?

- A.prompt
- B.input
- C.adaptive
- D.QnA Maker

Answer: A

Explanation:

A is the answer.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-concept-dialog?view=azure-bot-service-4.0#dialog-types>

The dialogs library provides a few types of dialogs to make your bot's conversations easier to manage.

- prompt dialogs

Ask the user for input and return the result. A prompt will repeat until it gets valid input or it's canceled. They're designed to work with waterfall dialogs.

Question: 205

AI-102

You are building a chatbot.

You need to configure the chatbot to query a knowledge base.

Which dialog class should you use?

- A.QnAMakerDialog
- B.AdaptiveDialog
- C.SkillDialog

Answer: A

Explanation:

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-concept-dialog?view=azure-bot-service-4.0#dialog-types>

The dialogs library provides a few types of dialogs to make your bot's conversations easier to manage.

- QnA Maker dialog

Automates access to a QnA Maker knowledge base. This dialog is designed to also work as an action within Composer.

Question: 206

AI-102: Actual Exam Q&A | CLEARCATNET

HOTSPOT

-

You have a chatbot.

You need to ensure that the bot conversation resets if a user fails to respond for 10 minutes.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
...
if now_seconds != last_access and (now_seconds - last_access >= self.expire_after_seconds):
    await turn_context.
    
    
    
    "Welcome back! Let's start over from the beginning."
)
await self.conversation_state.



```

Answer:

Answer Area

```
...
    if now_seconds != last_access and (now_seconds - last_access >= self.expire_after_seconds):
        await turn_context.on_send_activities(
            send_activity()
            send_trace_activity()
            update_activity())
        ...
    "Welcome back! Let's start over from the beginning."
)
await self.conversation_state.
...
(turn_context)
clear_state
Delete_property_value
Save_changes
Set_property_value
```

Explanation:

1. send_activity

2. clear_state

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-howto-expire-conversation?view=azure-bot-service-4.0&tabs=python#user-interaction-expiration>

Notify the user that the conversation is being restarted.

- await turn_context.send_activity()

Clear state.

- await self.conversation_state.clear_state(turn_context)

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-howto-expire-conversation?view=azure-bot-service-4.0&tabs=python>

Question: 207

AI-102

You develop a Conversational Language Understanding model by using Language Studio.

During testing, users receive incorrect responses to requests that do NOT relate to the capabilities of the model.

You need to ensure that the model identifies spurious requests.

What should you do?

- A. Enable active learning.
- B. Add entities.
- C. **Add examples to the None intent.**
- D. Add examples to the custom intents.

Answer: C

Explanation:

C is the answer.

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

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.

Question: 208

AI-102: Actual Exam Q&A | **CLEARCATNET**

You have a Speech resource and a bot that was built by using the Microsoft Bot Framework Composer.

You need to add support for speech-based channels to the bot.

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

NOTE: Each correct selection is worth one point.

- A. Configure the language and voice settings for the Speech resource.
- B. Add the endpoint and key of the Speech resource to the bot.
- C. Add language understanding to dialogs.
- D. Add Orchestrator to the bot.
- E. Add Speech to the bot responses.
- F. Remove the setSpeak configuration.

Answer: ABE

Explanation:

A. Configure the language and voice settings for the Speech resource.

This is necessary to ensure that the speech services can correctly interpret and generate speech in the desired language and voice.

B. Add the endpoint and key of the Speech resource to the bot.

This allows the bot to use the Speech resource for speech-to-text and text-to-speech capabilities.

E. Add Speech to the bot responses.

This is necessary to enable the bot to generate spoken responses to user input.

To add support for speech-based channels to a bot built with the Microsoft Bot Framework Composer, you should perform the following actions:

Add the endpoint and key of the Speech resource to the bot (B): You need to configure the bot to connect to the Speech resource, which will enable the bot to convert text into speech and vice versa.

Add Speech to the bot responses (E): You should update your bot's responses to include speech output. This is

important for speech-based channels, as the bot will need to generate spoken responses for users.

Configure the language and voice settings for the Speech resource (A): Configuring the language and voice settings in your Speech resource is important to ensure that the speech output is generated in the desired language and with the appropriate voice.

The other options (C, D, and F) are not directly related to adding support for speech-based channels and can be considered unrelated to this specific task.

Question: 209

AI-102: Actual Exam Q&A | CLEARCATNET

DRAG DROP

You are building a bot.

You need to test the bot in the Bot Framework Emulator. The solution must ensure that you can debug the bot interactively.

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

Actions	Answer Area
Run the bot app on a local host.	
Use the input prompt object to send a trace activity.	>
Deploy the bot to Azure.	<
In the code for the bot, create a new trace activity.	
In the code for the bot, send a trace activity.	

(Up) (Down)

Answer:

Actions	Answer Area
Run the bot app on a local host.	
Use the input prompt object to send a trace activity.	>
Deploy the bot to Azure.	<
In the code for the bot, create a new trace activity.	
In the code for the bot, send a trace activity.	

(Up) (Down)

Explanation:

1. In code, create new trace activity
2. In code, send a trace activity
3. Run bot app on local host

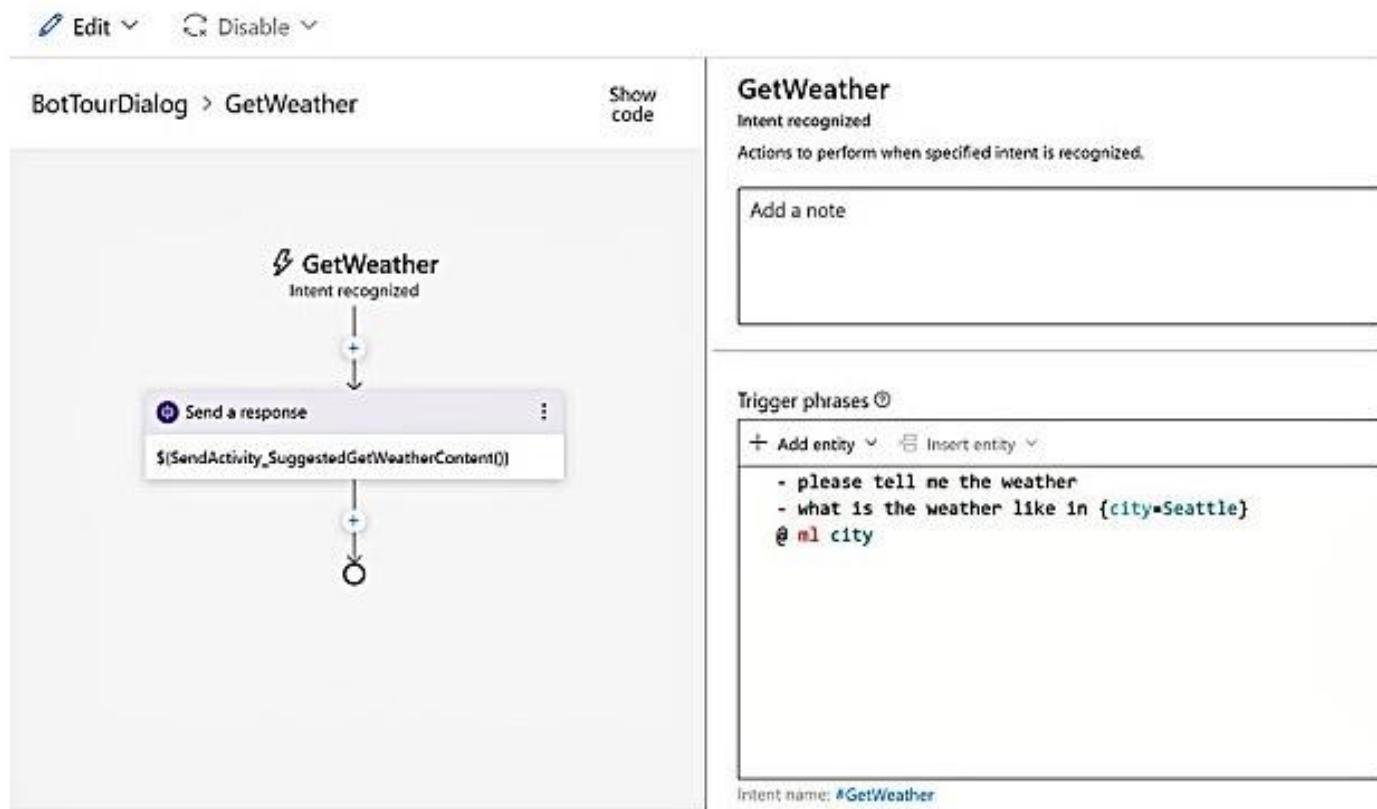
<https://learn.microsoft.com/en-us/azure/bot-service/using-trace-activities?view=azure-bot-service-4.0&tabs=csharp>

A trace activity is an activity that your bot can send to the Bot Framework Emulator. You can use trace activities to interactively debug a bot, as they allow you to view information about your bot while it runs locally.

Trace activities are sent only to the Emulator and not to any other client or channel. The Emulator displays them in the log but not the main chat panel.

HOTSPOT

You have a bot that was built by using the Microsoft Bot Framework composer as shown in the following exhibit.



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

NOTE: Each correct selection is worth one point.

Answer Area

If a user asks "what is the weather like in New York", the bot will [answer choice].

change to a different dialog
identify New York as a city entity
identify New York as a state entity
respond with the weather in Seattle

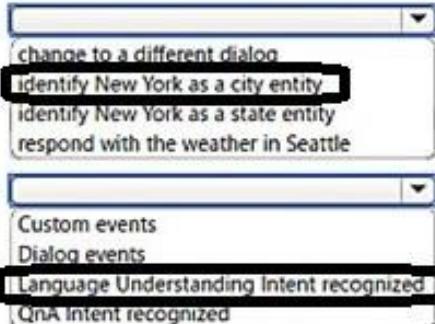
The GetWeather dialog uses a [answer choice] trigger.

Custom events
Dialog events
Language Understanding Intent recognized
QnA Intent recognized

Answer:

Answer Area

If a user asks "what is the weather like in New York", the bot will [answer choice].



The GetWeather dialog uses a [answer choice] trigger.

Explanation:

1. identity New York as city entity
2. Language Understanding intent recognised

<https://learn.microsoft.com/en-us/composer/concept-language-understanding?tabs=v2x#entities>

Entities are a collection of objects, each consisting of data extracted from an utterance such as places, times, and people. Entities and intents are both important data extracted from utterances. An utterance may include zero or more entities, while an utterance usually represents one intent. In Composer, all entities are defined and managed inline. Entities in the .lu file format are denoted using <entityName>=<labelled value> notation.

<https://learn.microsoft.com/en-us/composer/concept-events-and-triggers?tabs=v2x#intent-triggers>

Question: 211

AI-102

You are building a flight booking bot by using the Microsoft Bot Framework SDK.

The bot will ask users for the departure date. The bot must repeat the question until a valid date is given, or the users cancel the transaction.

Which type of dialog should you use?

- A.prompt
- B.adaptive
- C.waterfall
- D.action

Answer: A

Explanation:

A is the answer.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-concept-dialog?view=azure-bot-service-4.0#dialog-types>

The dialogs library provides a few types of dialogs to make your bot's conversations easier to manage.- prompt dialogsAsk the user for input and return the result. A prompt will repeat until it gets valid input or it's canceled. They're designed to work with waterfall dialogs.

Question: 212**AI-102: Actual Exam Q&A | CLEARCATNET**

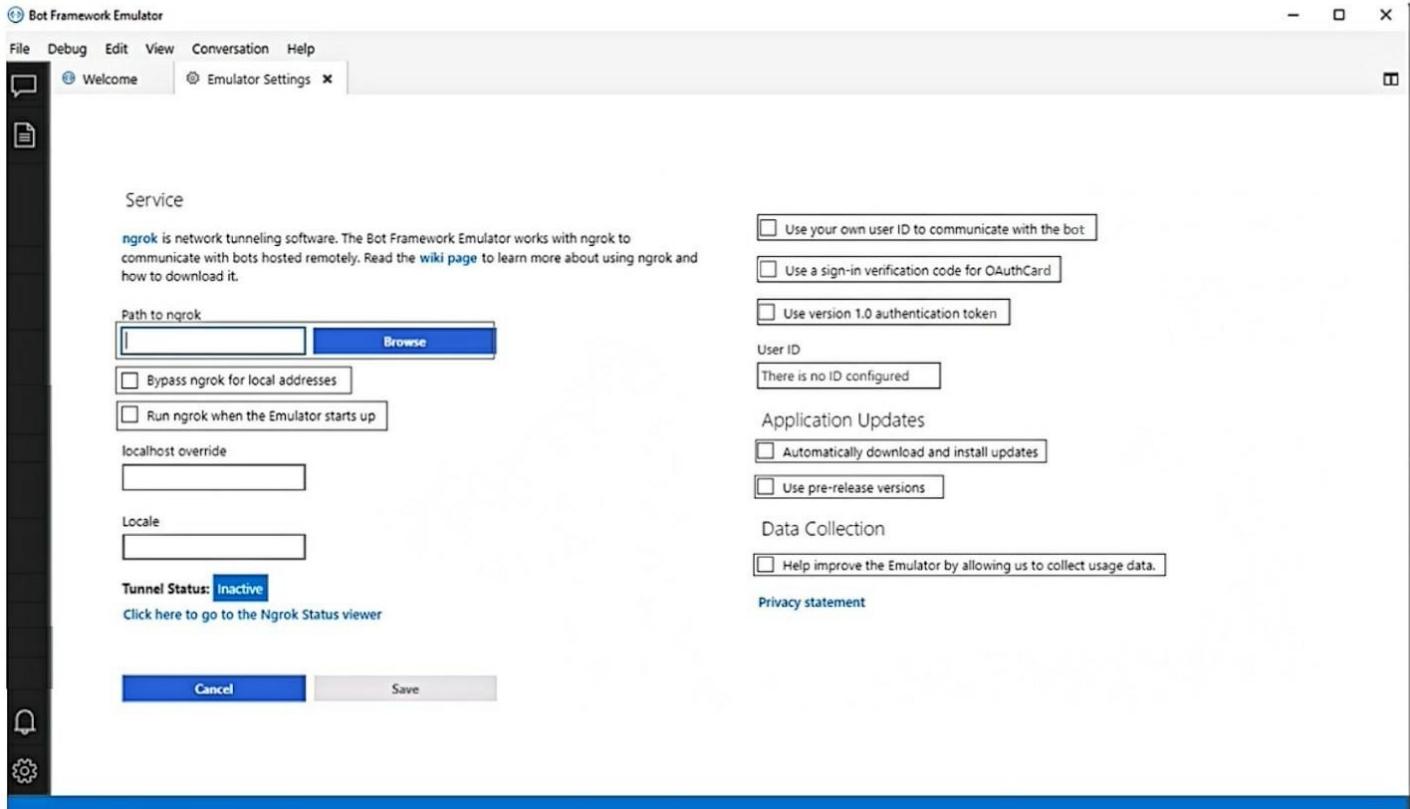
HOTSPOT

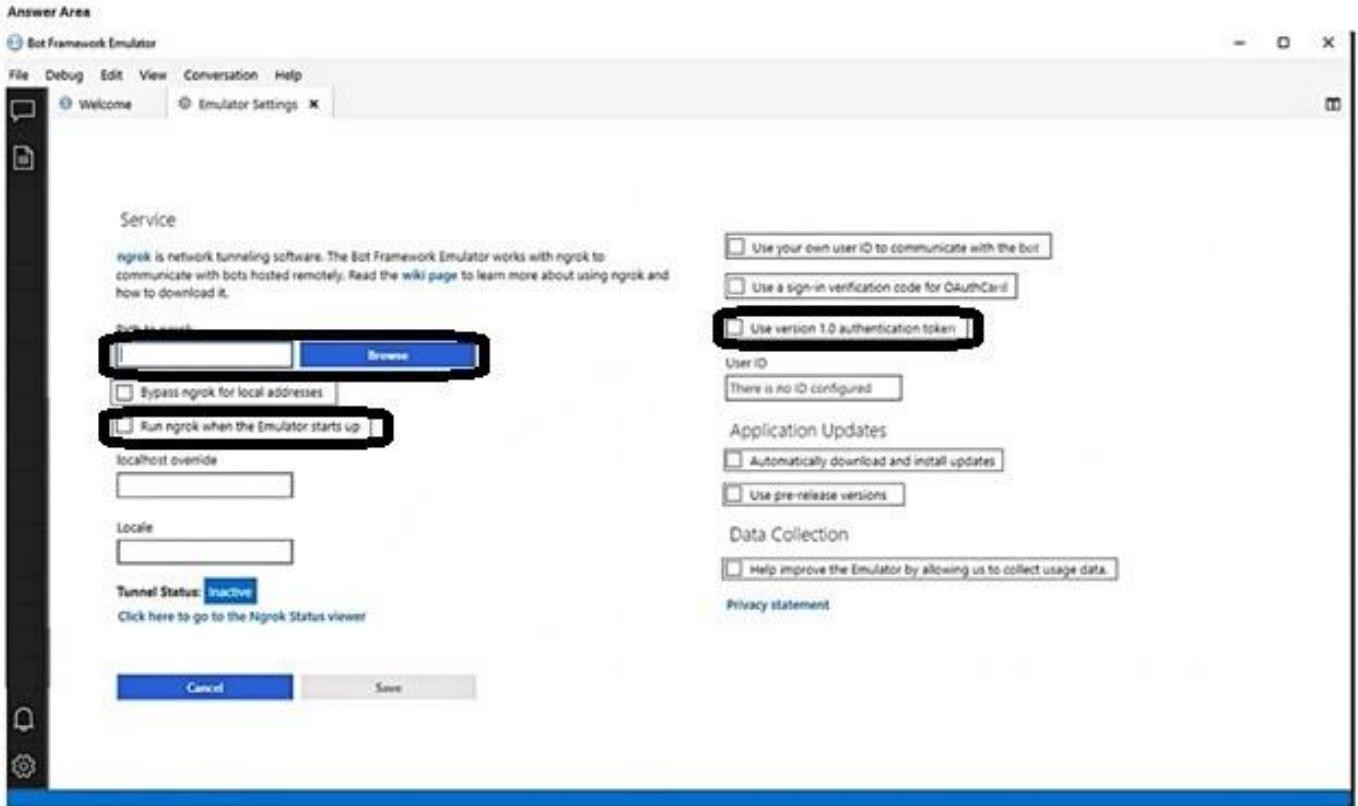
You have a chatbot.

You need to test the bot by using the Bot Framework Emulator. The solution must ensure that you are prompted for credentials when you sign in to the bot.

Which three settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area**Answer:**



Explanation:

1. Enter the local path to ngrok.
2. Enable Run ngrok when the Emulator starts up.
3. Enable Use version 1.0 authentication tokens.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-service-debug-emulator?view=azure-bot-service-4.0&tabs=csharp#using-authentication-tokens>

<https://learn.microsoft.com/en-us/azure/bot-service/bot-service-debug-emulator?view=azure-bot-service-4.0&tabs=csharp>

Question: 213

AI-102

HOTSPOT

-

You run the following command.

```
docker run --rm -it -p 5000:5000 --memory 10g --cpus 2 \
mcr.microsoft.com/azure-cognitive-services/textanalytics/language \
Eula=accept \
Billing={ENDPOINT_URI} \
ApiKey={API_KEY}
```

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

NOTE: Each correct selection is worth one point.

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 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 documentation for the available endpoints.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

NNY.

"http://localhost:5000/status --> Also requested with GET, this URL verifies if the api-key used to start the container is valid without causing an endpoint query"

Keywords here are without causing and endpoint query. So the answer to the first point is No.

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/text-analytics-for-health/how-to/use-containers?tabs=language#validate-that-a-container-is-running>

Question: 214

AI-102

You build a bot.

You create an Azure Bot resource.

You need to deploy the bot to Azure.

What else should you create?

- A. only an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, an Azure App Service instance, and an App Service plan
- B. only an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, an Azure Kubernetes Service (AKS) instance, and a container image
- C. **only an Azure App Service instance, and an App Service plan**
- D. only an Azure Machine Learning workspace and an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra

Answer: C

Explanation:

C the correct answer as you can choose User-assigned Managed Identity to manage the identities of your bot. So in that case it is not necessary to create an app reg

<https://learn.microsoft.com/en-us/azure/bot-service/provision-and-publish-a-bot?view=azure-bot-service-4.0&tabs=userassigned%2Csharp>

Question: 215

AI-102

You are building a chatbot by using the Microsoft Bot Framework SDK. The bot will be used to accept food orders from customers and allow the customers to customize each food item.

You need to configure the bot to ask the user for additional input based on the type of item ordered. The solution must minimize development effort.

Which two types of dialogs should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.adaptive
- B.action
- C.waterfall**
- D.prompt**
- E.input

Answer: CD

Explanation:

- C.waterfall
- D.prompt

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-concept-dialog?view=azure-bot-service-4.0#dialog-types>

Question: 216

AI-102

HOTSPOT

-

You are building a chatbot by using the Microsoft Bot Framework SDK.

You use an object named UserProfile to store user profile information and an object named ConversationData to store information related to a conversation.

You create the following state accessors to store both objects in state.

```
self.user_profile_accessor = self.user_state.create_property("UserProfile")
self.conversation_data_accessor = self.conversation_state.create_property("ConversationData")
```

The state storage mechanism is set to Memory Storage.

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The code will create and maintain the <code>UserProfile</code> object in the underlying storage layer.	<input type="radio"/>	<input type="radio"/>
The code will create and maintain the <code>ConversationData</code> object in the underlying storage layer.	<input type="radio"/>	<input type="radio"/>
The <code>UserProfile</code> and <code>ConversationData</code> objects will persist when the Bot Framework runtime terminates.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
The code will create and maintain the <code>UserProfile</code> object in the underlying storage layer.	<input checked="" type="checkbox"/>	<input type="radio"/>
The code will create and maintain the <code>ConversationData</code> object in the underlying storage layer.	<input checked="" type="checkbox"/>	<input type="radio"/>
The <code>UserProfile</code> and <code>ConversationData</code> objects will persist when the Bot Framework runtime terminates.	<input type="radio"/>	<input checked="" type="checkbox"/>

Explanation:

Yes

Yes

No

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-concept-state?view=azure-bot-service-4.0>

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-howto-v4-state?view=azure-bot-service-4.0&tabs=csharp>

Question: 217

AI-102

DRAG DROP -

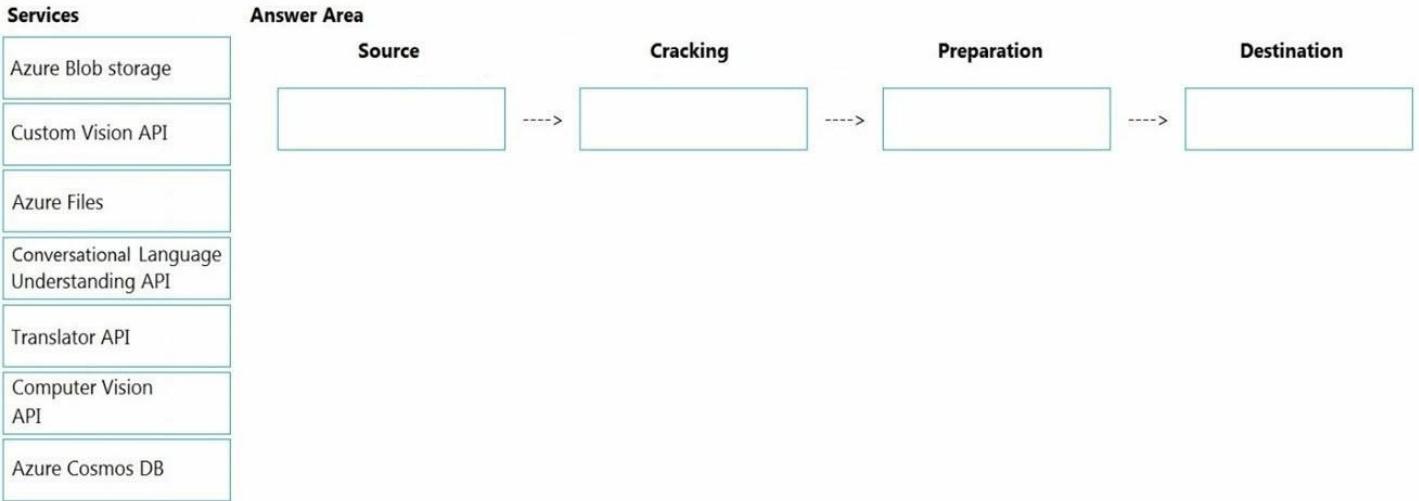
You are developing the smart e-commerce project.

You need to design the skillset to include the contents of PDFs in searches.

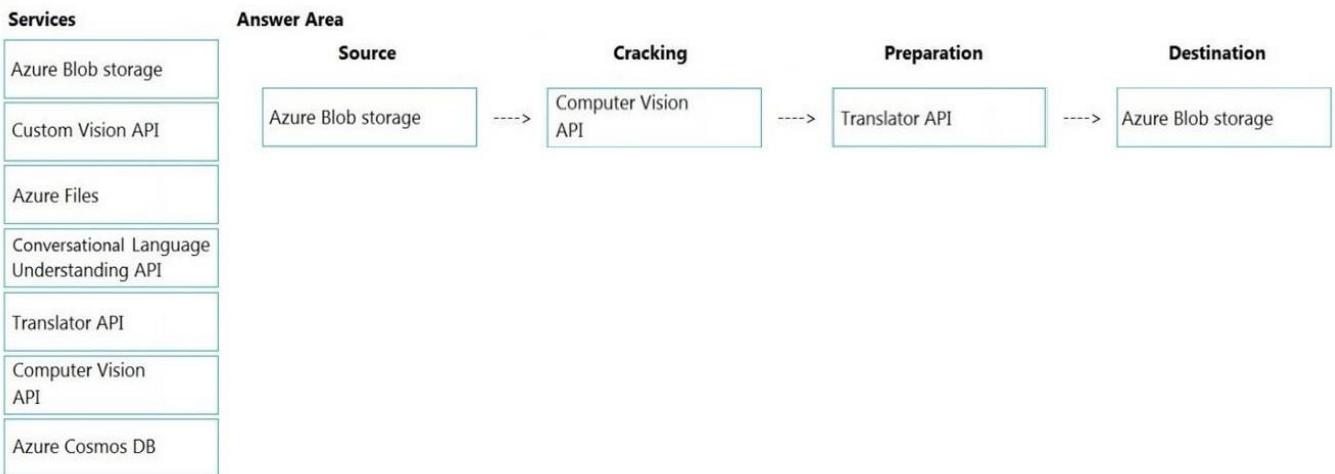
How should you complete the skillset design diagram? To answer, drag the appropriate services to the correct stages. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Answer:



Explanation:

Box 1: Azure Blob storage -

At the start of the pipeline, you have unstructured text or non-text content (such as images, scanned documents, or JPEG files). Data must exist in an Azure data storage service that can be accessed by an indexer.

Box 2: Computer Vision API -

Scenario: Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

The Computer Vision Read API is Azure's latest OCR technology (learn what's new) that extracts printed text (in several languages), handwritten text (English only), digits, and currency symbols from images and multi-page PDF documents.

Box 3: Translator API -

Scenario: Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Box 4: Azure Blob storage -

There are 3 types of projection for azure search index. Azure storage table for structured projection , Objection projection as json in Blob and finally file projection i.e image in azure blob

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-concept-intro>
<https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/overview-ocr>
<https://docs.microsoft.com/en-us/azure/search/knowledge-store-projection-overview>

Question: 218

AI-102: Actual Exam Q&A | CLEARCATNET

You are developing the chatbot.
You create the following components:
⇒ A QnA Maker resource
⇒ A chatbot by using the Azure Bot Framework SDK
You need to integrate the components to meet the chatbot requirements.
Which property should you use?

- A. QnAMakerOptions.StrictFilters
- B. QnADialogResponseOptions.CardNoMatchText
- C. QnAMakerOptions.RankerType
- D. **QnAMakerOptions.ScoreThreshold**

Answer: D

Explanation:

QnAMakerOptions.ScoreThreshold

Technical Requirements says "AI solution responses must have a confidence score that is equal to or greater than 70 percent" and "When the response confidence score is low, ensure that the chatbot can provide other response options to the customers"

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/confidence-score#set-threshold>

Question: 219

AI-102

You are developing the chatbot.
You create the following components:
⇒ A QnA Maker resource
⇒ A chatbot by using the Azure Bot Framework SDK
You need to add an additional component to meet the technical requirements and the chatbot requirements.
What should you add?

- A. Microsoft Translator
- B. Language Understanding
- C. Orchestrator
- D. chatdown

Answer: A

Explanation:

If you need to support a knowledge base system, which includes several languages, you can:

1) Use the Translator service to translate a question into a single language before sending the question to your knowledge base. This allows you to focus on the quality of a single language and the quality of the alternate questions and answers.

2) Create a QnA Maker resource, and a knowledge base inside that resource, for every language. This allows you to manage separate alternate questions and answer text that is more nuanced for each language. This gives you much more flexibility but requires a much higher maintenance cost when the questions or answers change across all languages."

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/overview/language-support#supporting-multiple-languages-in-one-knowledge-base>

Question: 220

AI-102: Actual Exam Q&A | CLEARCATNET

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service. When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question HOTSPOT -

You build a QnA Maker resource to meet the chatbot requirements.

Which RBAC role should you assign to each group? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Management-Accountants

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Consultant-Accountants

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Agent-CustomerServices

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Answer:

Answer Area

Management-Accountants

▼
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Consultant-Accountants

▼
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Agent-CustomerServices

▼
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Explanation:

Box 1: Cognitive Service User -

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Approve=publish.

Cognitive Service User (read/write/publish): API permissions: All access to Cognitive Services resource except for ability to:

1. Add new members to roles.

2. Create new resources.

Box 2: Cognitive Services QnA Maker Editor

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

QnA Maker Editor: API permissions:

1. Create KB API

2. Update KB API

3. Replace KB API

4. Replace Alterations

5. "Train API" [in new service model v5]

Box 3: Cognitive Services QnA Maker Read

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

QnA Maker Read: API Permissions:

1. Download KB API
2. List KBs for user API
3. Get Knowledge base details
4. Download Alterations

1. Cognitive Service User

2. QnA Maker Editor

3. QnA Maker Read

<https://learn.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/role-based-access-control#access-is-provided-by-a-defined-role>

- Cognitive Service User (read/write/publish)

- QnA Maker Editor (read/write)

- QnA Maker Read (read)

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/role-based-access-control>

Question: 221

AI-102: Actual Exam Q&A | CLEARCATNET

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:
Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{
    "sku": "b1",
    "name": {
        "en": "Bicycle",
        "es": "Bicicleta",
        "pt": "Bicicleta"
    },
    "stocklevel": "Out of Stock",
    "description": {
        "en": "Bicycle",
        "es": "Bicicleta",
        "pt": "Bicicleta"
    },
    "image": {
        "uri": "https://upload.worldwideimporters.org/bicycle.jpg",
        "alttext": {
            "en": "Bicycle",
            "es": "Bicicleta",
            "pt": "Bicicleta"
        }
    },
    "createdUtc": "2020-02-14T06:08:39Z",
    "language": "en"
}
```

Question DRAG DROP -

You are planning the product creation project.

You need to recommend a process for analyzing videos.

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

Select and Place:

Actions**Answer Area**

Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.

Upload the video to blob storage.

Analyze the video by using the Computer Vision API.

Extract the transcript from Microsoft Stream.

Send the transcript to the Language Understanding API as an utterance.

Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.

Translate the transcript by using the Translator API.

Upload the video to file storage.

Answer:

Actions

Analyze the video by using the Computer Vision API.

Extract the transcript from Microsoft Stream.

Send the transcript to the Language Understanding API as an utterance.

Upload the video to file storage.

Answer Area

Upload the video to blob storage.

Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.

Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.

Translate the transcript by using the Translator API.

Explanation:

Scenario: All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Step 1: Upload the video to blob storage

Given a video or audio file, the file is first dropped into a Blob Storage. T

Step 2: Index the video by using the Video Indexer API.

When a video is indexed, Video Indexer produces the JSON content that contains details of the specified video insights. The insights include: transcripts, OCRs, faces, topics, blocks, etc.

Step 3: Extract the transcript from the Video Indexer API.

Step 4: Translate the transcript by using the Translator API.

Reference:

<https://azure.microsoft.com/en-us/blog/get-video-insights-in-even-more-languages/> <https://docs.microsoft.com/en-us/azure/media-services/video-indexer/video-indexer-output-json-v2>

Question: 222

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage

your time to ensure that you are able to complete all questions included on this exam in the time provided. To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

■

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:
Provide a multilingual customer experience that supports English, Spanish, and Portuguese.
Whenever possible, scale based on transaction volumes to ensure consistent performance.
Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:
Data storage and processing must occur in datacenters located in the United States.
Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```

{
    "sku": "bl",
    "name": {
        "en": "Bicycle",
        "es": "Bicicleta",
        "pt": "Bicicleta"
    },
    "stocklevel": "Out of Stock",
    "description": {
        "en": "Bicycle",
        "es": "Bicicleta",
        "pt": "Bicicleta"
    },
    "image": {
        "uri": "https://upload.worldwideimporters.org/bicycle.jpg",
        "alttext": {
            "en": "Bicycle",
            "es": "Bicicleta",
            "pt": "Bicicleta"
        }
    },
    "createdUtc": "2020-02-14T06:08:39Z",
    "language": "en"
}

```

Question HOTSPOT -

You need to develop code to upload images for the product creation project. The solution must meet the accessibility requirements.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```

public static async Task<string> SuggestAltText(ComputerVisionClient client,
{
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()
    {
        VisualFeatureTypes.Description
        VisualFeatureTypes.ImageType
        VisualFeatureTypes.Objects
        VisualFeatureTypes.Tags
    };
    ImageAnalysis results = await client.AnalyzeImageAsync(image, features);
    var c = results.Brands.DetectedBrands[0]
    var c = results.Description.Captions[0]
    var c = results.Metadata[0]
    var c = results.Objects[0]

    if(c.Confidence>0.5) return(c.Text);
}

```

Dictionary
stream
string

image)

Answer:

Answer Area

```
public static async Task<string> SuggestAltText(ComputerVisionClient client,
{
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()
    {
        VisualFeatureTypes.Description
        VisualFeatureTypes.ImageType
        VisualFeatureTypes.Objects
        VisualFeatureTypes.Tags
    };
    ImageAnalysis results = await client.AnalyzeImageAsync(image, features);
    var c = results.Brands.DetectedBrands[0]
    var c = results.Description.Captions[0]
    var c = results.Metadata[0]
    var c = results.Objects[0]

    if(c.Confidence>0.5) return(c.Text);
}
```

Dictionary	▼	image)
stream		
String		

Explanation:

1. string
2. VisualFeatureTypes.Description
3. results.Description.Captions[0]

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

The image description feature is part of the Analyze Image API. You can call this API through a native SDK or through REST calls. Include Description in the visualFeatures query parameter. Then, when you get the full JSON response, parse the string for the contents of the "description" section.

Reference:

<https://github.com/Azure-Samples/cognitive-services-dotnet-sdk-samples/blob/master/documentation-samples/quickstarts/ComputerVision/Program.cs>

Question: 223

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question DRAG DROP -

You are developing a solution for the Management-Bookkeepers group to meet the document processing requirements. The solution must contain the following components:

⇒ A Form Recognizer resource

⇒ An Azure web app that hosts the Form Recognizer sample labeling tool

The Management-Bookkeepers group needs to create a custom table extractor by using the sample labeling tool.

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

Select and Place:

Actions	Answer Area
Train a custom model	
Label the sample documents	▶
Create a new project and load sample documents	◀
Create a composite model	

Answer:

Actions	Answer Area
	Create a new project and load sample documents
	▶
	Label the sample documents
	◀
Create a composite model	Train a custom model

Explanation:

Step 1: Create a new project and load sample documents

Create a new project. Projects store your configurations and settings.

Step 2: Label the sample documents

When you create or open a project, the main tag editor window opens.

Step 3: Train a custom model.

Finally, train a custom model.

Reference:

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

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -**General Overview -**

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -**Infrastructure -**

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the knowledgebase.

You use Azure Video Analyzer for Media (previously Video indexer) to obtain transcripts of webinars.

You need to ensure that the solution meets the knowledgebase requirements.

What should you do?

- Create a custom language model
- Configure audio indexing for videos only
- Enable multi-language detection for videos
- Build a custom Person model for webinar presenters

Answer: B

Explanation:

Keyword "jargon", so choose "A. Create a custom language model".

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/customize-language-model-overview>

Azure Video Indexer supports automatic speech recognition through integration with the Microsoft Custom Speech Service. You can customize the Language model by uploading adaptation text, namely text from the domain whose vocabulary you'd like the engine to adapt to. Once you train your model, new words appearing in the adaptation text will be recognized, assuming default pronunciation, and the Language model will learn new probable sequences of words.

<https://azure.microsoft.com/en-us/blog/new-ways-to-train-custom-language-models-effortlessly/>

<https://docs.microsoft.com/en-us/azure/azure-video-indexer/video-indexer-overview>

Question: 225

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore

the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named `wwics`

An Azure Video Analyzer for Media (previously Video Indexer) resource named `wwivi`

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
        {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
            "alttext": {  
                "en": "Bicycle",  
                "es": "Bicicleta",  
                "pt": "Bicicleta"  
            }  
        },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question HOTSPOT -

You are planning the product creation project.

You need to build the REST endpoint to create the multilingual product descriptions.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

api.cognitive.microsofttranslator.com
api-nam.cognitive.microsofttranslator.com
westus.tts.speech.microsoft.com
wwics.cognitiveservices.azure.com/translator

?api-version=3.0&to=es&to=pt
/detect
/languages
/text-to-speech
/translate

Answer:

Answer Area

api.cognitive.microsofttranslator.com
api-nam.cognitive.microsofttranslator.com
westus.tts.speech.microsoft.com
wwics.cognitiveservices.azure.com/translator

?api-version=3.0&to=es&to=pt
/detect
/languages
/text-to-speech
/translate

Explanation:

Box 1: api-nam.cognitive.microsofttranslator.com

this is because the case study specifically states under Business Requirements "Data storage and processing must occur in datacenters located in the United States."

see reference documentation for base urls per geo region:

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

Box 2: /translate -

Reference:

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

Question: 226

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information

tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You need to develop an extract solution for the receipt images. The solution must meet the document processing requirements and the technical requirements.

You upload the receipt images to the Form Recognizer API for analysis, and the API returns the following JSON.

```
"documentResults": [
    {
        "docType": "prebuilt:receipt",
        "pageRange": [
            1,
            1
        ],
        "fields": {
            "ReceiptType": {
                "type": "string",
                "valueString": "Itemized",
                "confidence": 0.672
            },
            "MerchantName": {
                "type": "string",
                "valueString": "Tailwind",
                "text": "Tailwind",
                "boundingBox": [],
                "page": 1,
                "confidence": 0.913,
                "elements": [
                    "#/readResults/0/lines/0/words/0"
                ]
            },
            ...
        }
    }
]
```

Which expression should you use to trigger a manual review of the extracted information by a member of the Consultant-Bookkeeper group?

- A. documentResults.docType == "prebuilt:receipt"

- B. documentResults.fields.*.confidence < 0.7
- C. documentResults.fields.ReceiptType.confidence > 0.7
- D. documentResults.fields.MerchantName.confidence < 0.7

Answer: B

Explanation:

correct answer is B

Because that expression evaluates whether the confidence score of any field in the extracted information is less than 70 percent. Option D focus on a specific field (MerchantName) but do not consider the overall confidence score across all fields

Question: 227

AI-102: Actual Exam Q&A | CLEARCATNET

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out

of Stock. The function app uses the Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named `wwics`

An Azure Video Analyzer for Media (previously Video Indexer) resource named `wwivi`

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question You are developing the smart e-commerce project.

You need to implement autocompletion as part of the Cognitive Search solution.

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

NOTE: Each correct selection is worth one point.

- A. Make API queries to the autocomplete endpoint and include suggesterName in the body.
- B. Add a suggester that has the three product name fields as source fields.
- C. Make API queries to the search endpoint and include the product name fields in the searchFields query parameter.
- D. Add a suggester for each of the three product name fields.
- E. Set the searchAnalyzer property for the three product name variants.
- F. Set the analyzer property for the three product name variants.

Answer: ABF

Explanation:

Scenario: Support autocompletion and autosuggestion based on all product name variants.

A: Call a suggester-enabled query, in the form of a Suggestion request or Autocomplete request, using an API. API usage is illustrated in the following call to the

Autocomplete REST API.

```
POST /indexes/myxboxgames/docs/autocomplete?search&api-version=2020-06-30
```

```
"search": "minecraf",
```

"suggesterName": "sg"

B: In Azure Cognitive Search, typeahead or "search-as-you-type" is enabled through a suggester. A suggester provides a list of fields that undergo additional tokenization, generating prefix sequences to support matches on partial terms. For example, a suggester that includes a City field with a value for "Seattle" will have prefix combinations of "sea", "seat", "seatt", and "seattl" to support typeahead.

F. Use the default standard Lucene analyzer ("analyzer": null) or a language analyzer (for example, "analyzer": "en.Microsoft") on the field.

A , B , F

B. Add a suggester that has the three product name fields as source fields

F. Set the analyzer property for the three product name variants.

A. Make API queries to the autocomplete endpoint and include suggesterName in the body.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-add-autocomplete-suggestions>

<https://docs.microsoft.com/en-us/azure/search/index-add-suggesters>

Question: 228

AI-102: Actual Exam Q&A | CLEARCATNET

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the document processing workflow.

You need to identify which API endpoints to use to extract text from the financial documents. The solution must meet the document processing requirements.

Which two API endpoints should you identify? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. /vision/v3.1/read/analyzeResults
- B. /formrecognizer/v2.0/custom/models/ modelId /analyze
- C. /formrecognizer/v2.0/prebuilt/receipt/analyze
- D. /vision/v3.1/describe
- E. /vision/v3.1/read/analyze

Answer: BE

Explanation:

B. /formrecognizer/v2.0/custom/models/ modelId /analyze

This endpoint is part of Azure's Form Recognizer service. It's particularly useful for extracting text and tables from financial documents because it can use custom models trained on your specific document types, enabling it to handle the distinct standards for each office as mentioned in the requirements.

E. /vision/v3.1/read/analyze

The Azure Computer Vision API's Read operation, which is executed by making a POST request to the /read/analyze endpoint, can analyze text in images, PDF documents, and TIFF files, recognizing both printed and handwritten text. It is designed to handle large documents and extracts the text and structure (such as tables) in the document.

So according to me the correct answer is B to extract the data from the tables and E to extract from the texts

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

<https://learn.microsoft.com/en-us/rest/api/computervision/read/read?view=rest-computervision-v3.1&tabs=HTTP>

Question: 229

AI-102: Actual Exam Q&A | CLEARCATNET

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.

- Be formatted as PDF or JPEG files.

- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question HOTSPOT -

You are developing the knowledgebase by using Azure Cognitive Search.

You need to build a skill that will be used by indexers.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
{  
  
  "@odata.type": "#Microsoft.Skills.Text.EntityRecognitionSkill",  
  "categories": [],  
  "categories": [ "Email", "Persons", "Organizations"],  
  "categories": [ "Locations", "Persons", "Organizations"],  
  
  "defaultLanguageCode": "en",  
  "includeTypelessEntities": true,  
  "minimumPrecision": 0.7,  
  "inputs": [  
    { "name": "text",  
      "source": "/document/content"}  
  ],  
  "outputs": [  
    {"name": "persons", "targetName": "people"},  
    {"name": "locations", "targetName": "locations"},  
    {"name": "organizations", "targetName": "organizations"},  
  
    {"name": "entities"},  
    {"name": "categories"},  
    {"name": "namedEntities"}  
  ]  
}
```

Answer:

Answer Area

```
{
```

```
    "@odata.type": "#Microsoft.Skills.Text.EntityRecognitionSkill",
    "categories": [],
    "categories": [ "Email", "Persons", "Organizations"],
    "categories": [ "Locations", "Persons", "Organizations"],

    "defaultLanguageCode": "en",
    "includeTypelessEntities": true,
    "minimumPrecision": 0.7,
    "inputs": [
        { "name": "text",
          "source": "/document/content"}
    ],
    "outputs": [
        { "name": "persons", "targetName": "people"},  

        { "name": "locations", "targetName": "locations"},  

        { "name": "organizations", "targetName": "organizations"},

        {"name": "entities"}  

        {"name": "categories"}  

        {"name": "namedEntities"}  

    ]
}
```

Explanation:

Box 1: "categories": ["Locations", "Persons", "Organizations"],

Locations, Persons, Organizations are in the outputs.

Scenario: Contoso plans to develop a searchable knowledgebase of all the intellectual property

Note: The categories parameter is an array of categories that should be extracted. Possible category types:

"Person", "Location", "Organization", "Quantity",

"Datetime", "URL", "Email". If no category is provided, all types are returned.

Box 2: "name": "entities"

The include wikis, so should include entities in the outputs.

Note: entities is an array of complex types that contains rich information about the entities extracted from text, with the following fields name (the actual entity name). This represents a "normalized" form) wikipediaId and wikipediaLanguage wikipediaUrl (a link to Wikipedia page for the entity) etc.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-entity-recognition>

Question: 230

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to

make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the knowledgebase by using Azure Cognitive Search.

You need to process wiki content to meet the technical requirements.

What should you include in the solution?

- A. an indexer for Azure Blob storage attached to a skillset that contains the language detection skill and the text translation skill
- B. an indexer for Azure Blob storage attached to a skillset that contains the language detection skill
- C. an indexer for Azure Cosmos DB attached to a skillset that contains the document extraction skill and the text translation skill
- D. **an indexer for Azure Cosmos DB attached to a skillset that contains the language detection skill and the text translation skill**

Answer: D

Explanation:

Wikis are already in text format and available in three languages so what do you need the document extraction and translation normalize the text to a single language before indexing for? What you need is to detect the language of the text and translate it to English if you want to normalize the text to a single language before indexing for search. Only in this case it would make sense to use text translation skill.

You don't need Document Extraction to extract text from files. You have already the text in wikis.

<https://learn.microsoft.com/en-us/azure/search/cognitive-search-skill-document-extraction>

It's true that Text Translation could also detect the source language but reading the documentation seems it could be not so accurate.

<https://learn.microsoft.com/en-us/azure/search/cognitive-search-skill-text-translation>

For sure you need two operations here: detect and translate.

Question: 231

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

Content	Format	Language	Content store	Domain
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

Requirements -

Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the knowledgebase by using Azure Cognitive Search.

You need to meet the knowledgebase requirements for searching equivalent terms.

What should you include in the solution?

- A. synonym map
- B. a suggester
- C. a custom analyzer
- D. a built-in key phrase extraction skill

Answer: A

Explanation:

Within a search service, synonym maps are a global resource that associate equivalent terms, expanding the scope of a query without the user having to actually provide the term. For example, assuming "dog", "canine", and "puppy" are mapped synonyms, a query on "canine" will match on a document containing "dog".

Create synonyms: A synonym map is an asset that can be created once and used by many indexes.

Reference:

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

Question: 232

AI-102: Actual Exam Q&A | **CLEARCATNET**

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the -

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question HOTSPOT -

You are developing the shopping on-the-go project.

You need to build the Adaptive Card for the chatbot.

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

NOTE: Each correct selection is worth one point.

Hot Area:

```

{
  "$schema": "http://adaptivecards.io.schemas/adaptive-card.json",
  "type": "AdaptiveCard",
  "version": "1.3",
  "body": [
    {
      "type": "TextBlock",
      "size": "Medium",
      "weight": "Bolder",
      "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]
    },
    {
      "type": "TextBlock",
      "text": "${stockLevel}",
      "color": "Attention"
    },
    {
      "type": "Image",
      "url": "${image.uri}",
      "size": "Medium",
      "altText": "${image.altText.en}  
image.altText.language  
image.altText.[language]  
image.altText.[language]
    }
  ]
}

```

Answer:

```

{
  "$schema": "http://adaptivecards.io.schemas/adaptive-card.json",
  "type": "AdaptiveCard",
  "version": "1.3",
  "body": [
    {
      "type": "TextBlock",
      "size": "Medium",
      "weight": "Bolder",
      "text": "${\n        if(language == 'en', 'en', name)\n        name\n        name.en\n        name[language]\n      }"
    },
    {
      "type": "TextBlock",
      "when": "${stockLevel != 'OK'}"
    },
    {
      "type": "Image",
      "url": "${image.uri}",
      "size": "Medium",
      "altText": "${\n        image.altText.en\n        image.altText.language\n        image.altText.[\"language\"]\n        image.altText.[language]\n      }"
    }
  ]
}

```

Explanation:

Box 1: name [language]

Chatbot must support interactions in English, Spanish, and Portuguese.

Box 2: "\$when:\$ stockLevel != 'OK' "

Product displays must include images and warnings when stock levels are low or out of stock.

Box 3: image.altText[language]

1. name[language]

2. != OK

3. image.altText.[language]

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -**Applications -**

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the -

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -**Business Goals -**

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocompletion and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question HOTSPOT -

You are developing the shopping on-the-go project.

You are configuring access to the QnA Maker (classic) resources.

Which role should you assign to AllUsers and LeadershipTeam? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

AllUsers:

- Cognitive Service User
- Contributor
- Owner
- QnA Maker Editor
- QnA Maker Read

LeadershipTeam:

- Cognitive Service User
- Contributor
- Owner
- QnA Maker Editor
- QnA Maker Read

Answer:

Answer Area

AllUsers:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

LeadershipTeam:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

Explanation:

Box 1: QnA Maker Editor -

Scenario: Provide all employees with the ability to edit Q&As.

The QnA Maker Editor (read/write) has the following permissions:

- ⇒ Create KB API
- ⇒ Update KB API
- ⇒ Replace KB API
- ⇒ Replace Alterations
- ⇒ "Train API" [in new service model v5]

Box 2: Contributor -

Scenario: Only senior managers must be able to publish updates.

Contributor permission: All except ability to add new members to roles

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/reference-role-based-access-control>

Question: 234

AI-102

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to

make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the -

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:
Data storage and processing must occur in datacenters located in the United States.
Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:
All images must have relevant alt text.
All videos must have transcripts that are associated to the video and included in product descriptions.
Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:
Minimize how long it takes for employees to create products and add assets.
Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:
Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.
Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.
Support autocompletion and suggestion based on all product name variants.
Store all raw insight data that was generated, so the data can be processed later.
Update the stock level field in the product index immediately upon changes.
Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:
Answer common questions.
Support interactions in English, Spanish, and Portuguese.
Replace an existing FAQ process so that all Q&A is managed from a central location.
Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.
Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "b1",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
        {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
            "alttext": {  
                "en": "Bicycle",  
                "es": "Bicicleta",  
                "pt": "Bicicleta"  
            }  
        },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question HOTSPOT -

You are developing the shopping on-the-go project.

You need to build the Adaptive Card for the chatbot.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
version": "1.3",
"body": [
  {

    "type": "TextBlock",
    "size": "Medium",
    "weight": "Bolder",
    "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]
  },
  {
    "type": "TextBlock",
    "$when": "${stockLevel != 'OK'}"  
"$when": "${stockLevel == 'OK'}"  
"$when": "${stockLevel.OK}"
  },
  {
    color : Attention
  },
  {
    "type": "Image",
    "url": "${image.uri}",
    "size": "Medium",
    "altText": "${image.altText.en}  
image.altText.language  
image.altText["language"]  
image.altText[language]
  }
]
```

Answer:

Answer Area

```
version": "1.3",
"body": [
  {
    "type": "TextBlock",
    "size": "Medium",
    "weight": "Bolder",
    "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]
  },
  {
    "type": "TextBlock",
    "text": "$when": "${stockLevel != 'OK'}"  
"$when": "${stockLevel == 'OK'}"  
"$when": "${stockLevel.OK}"
    color : Attention
  },
  {
    "type": "Image",
    "url": "${image.uri}",
    "size": "Medium",
    "altText": "${image.altText.en}  
image.altText.language  
image.altText["language"]  
image.altText[language]
  }
]
```

Explanation:

1. name[language]
2. "\$when": "\$ stockLevel != 'OK'"
3. image.altText[language]

Thank you

Thank you for being so interested in the premium exam material.

I'm glad to hear that you found it informative and helpful.

If you have any feedback or thoughts on the dumps, I would love to hear them.
Your insights can help me improve our writing and better understand our readers.

Best of Luck

You have worked hard to get to this point, and you are well-prepared for the exam
Keep your head up, stay positive, and go show that exam what you're made of!



VIST US to Purchase easily any IT Exam Dumps -
WWW.CLEARCATNET.COM

STAY CONNECTED WITH US-

Send us your request/inquiry at clearcat.net@gmail.com or connect us for [Live Support](#) any time for any certification exam dumps pdf Or for most asked Interview Q&A PDFs to ensure your success in first try!!



Follow us on: [Facebook](#) | [Instagram](#) | [LinkedIn](#) | [reddit](#) | [Twitter](#) | [Quora](#) | [YouTube](#)

IT Certifications Exam – Best Practice Q&A



Get Any Full Premium PDF Now

97.5%
Success
Rate

WWW.CLEARCATNET.COM



👉 Mail us-

clearcat.net@gmail.com

👉 Live Chat

[t.Me/CLEARCATNET](https://t.me/CLEARCATNET)

👉 Watch us-

[YouTube/CLEARCATNET](https://www.youtube.com/CLEARCATNET)



Latest Real Exam Q&A, FIRST ATTEMPT PASS