

Exam : AI-102

Title : Designing and Implementing a Microsoft Azure AI Solution

Vendor : Microsoft

Version : V21.35

NO.1 You are building a chatbot.

You need to ensure that the bot will recognize the names of your company's products and codenames.

The solution must minimize development effort.

Which Azure Cognitive Service for Language service should you include in the solution?

- A.** custom text classification
- B.** entity linking
- C.** custom Named Entity Recognition (NER)
- D.** key phrase extraction

Answer: C

NO.2 You are building an image sharing app that will use Azure AI to prevent users from sharing sexually explicit images.

You need to ensure that inappropriate images are identified correctly. The solution must minimize development effort.

What should you use?

- A.** Azure AI Studio
- B.** Visual Studio
- C.** Azure AI Content Safety Studio
- D.** Vision Studio in Azure AI Vision

Answer: C

Explanation:

To prevent users from sharing sexually explicit images, you need a tool that can handle content moderation specifically designed for inappropriate content such as adult or sexually explicit material. Azure AI Content Safety Studio is a service designed for this purpose, providing pre-built AI models that can detect inappropriate content like adult images, violence, and other sensitive material. It minimizes development effort by offering an easy-to-use, pre-configured service for content safety without the need to build custom models.

NO.3 You have a product support manual.

You need to build a product support chatbot based on the manual. The solution must minimize development effort and costs.

What should you use?

- A.** Azure OpenAI GPT-4 with grounding data that uses Azure AI Search
- B.** Azure AI Document intelligence
- C.** Azure AI Language Custom question answering
- D.** Azure AI Phi-3-medium with fine-tuning

Answer: A

Explanation:

Azure OpenAI On Your Data makes it easier for developers to connect, ingest and ground their enterprise data to create personalized copilots (preview) rapidly. It enhances user comprehension, expedites task completion, improves operational efficiency, and aids decision-making.

Azure OpenAI On Your Data enables you to run advanced AI models such as GPT-35-Turbo and GPT-4 on your own enterprise data without needing to train or fine-tune models. You can chat on top of

and analyze your data with greater accuracy. You can specify sources to support the responses based on the latest information available in your designated data sources.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/openai/concepts/use-your-data>

NO.4 Hotspot Question

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

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

Provide access to AI1 by using:

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

Connect to the deployment by using:

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

Answer:

Answer Area

Provide access to AI1 by using:

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

Connect to the deployment by using:

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

NO.5 You have an Azure subscription that contains an Azure OpenAI resource named AI1 and a user named User1.

You need to ensure that User1 can add custom data sources to AI1. The solution must follow the principle of least privilege.

Which role should you assign to User1?

- A.** Cognitive Services Contributor
- B.** Search Index Data Contributor
- C.** Search Service Contributor
- D.** Cognitive Services OpenAI Contributor

Answer: D

Explanation:

To allow User1 to add custom data sources to an Azure OpenAI resource while adhering to the principle of least privilege, you should assign the Cognitive Services OpenAI Contributor role.

This role is specifically designed to grant permissions for managing resources in the Azure OpenAI service, which includes the ability to work with custom data sources within the service.

NO.6 You have an existing Azure AI 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 Azure AI 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 Azure AI 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>

NO.7 You are building an app that will use Azure AI Language to extract meaning from text messages.

You need to provide additional context by adding references to supporting articles in Wikipedia.

What should you use?

- A.** key phrase extraction
- B.** entity linking
- C.** Azure AI Content Safety
- D.** custom entity extraction recognition (NER)

Answer: B

Explanation:

Entity linking is a feature of Azure AI Language that identifies named entities in a text and links them to entries in a knowledge base, such as Wikipedia. This is used when you need to provide additional context for entities by connecting them to their corresponding articles or resources in external knowledge bases.

In this case, since the requirement is to add references to supporting articles in Wikipedia, entity linking is the appropriate choice because it enables automatic connection of entities to Wikipedia articles.

NO.8 You plan to build an agent that will combine and process multiple files uploaded by users.

You are evaluating whether to use the Azure AI Agent Service to develop the agent.

What is the maximum size of each file that can be uploaded to the service?

- A.** 10 MB
- B.** 256 MB
- C.** 512 MB
- D.** 1 GB

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/agents/quotas-limits>

NO.9 You are building a Conversational 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

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

NO.10 Drag and Drop Question

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

You need to use the Azure AI 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.

Actions**Answer Area**

Train the classifier model.

Upload and tag images.

Initialize the training dataset.

Train the object detection model.

Create a project.



Answer:

NO.12 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

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

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

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

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

Answer:

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>

NO.13 Drag and Drop Question

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

App1 was developed by using a Conversational 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.

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.

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.

Select v1.0 of app1.

Select v1.2 of app1.

Explanation:

Step 1: Select v1.1 of app1.

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

Step 2: Export the model using the Export for containers (GZIP) option.

Export versioned app's package from LUIS portal

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

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

Versions ?


The screenshot shows a table with the following data:

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

At the top, there is a toolbar with the following buttons: Rename, Clone, Export, All, and Search for version(s). The Export button is highlighted with a blue border. A dropdown menu under Export shows two options: Export as JSON and Export for container (GZIP). The Export for container (GZIP) option is also highlighted with a blue border.

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>

NO.14 SIMULATION

You need to create a Azure AI Document Intelligence resource named fr12345678.

Use the Azure AI Document Intelligence 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.

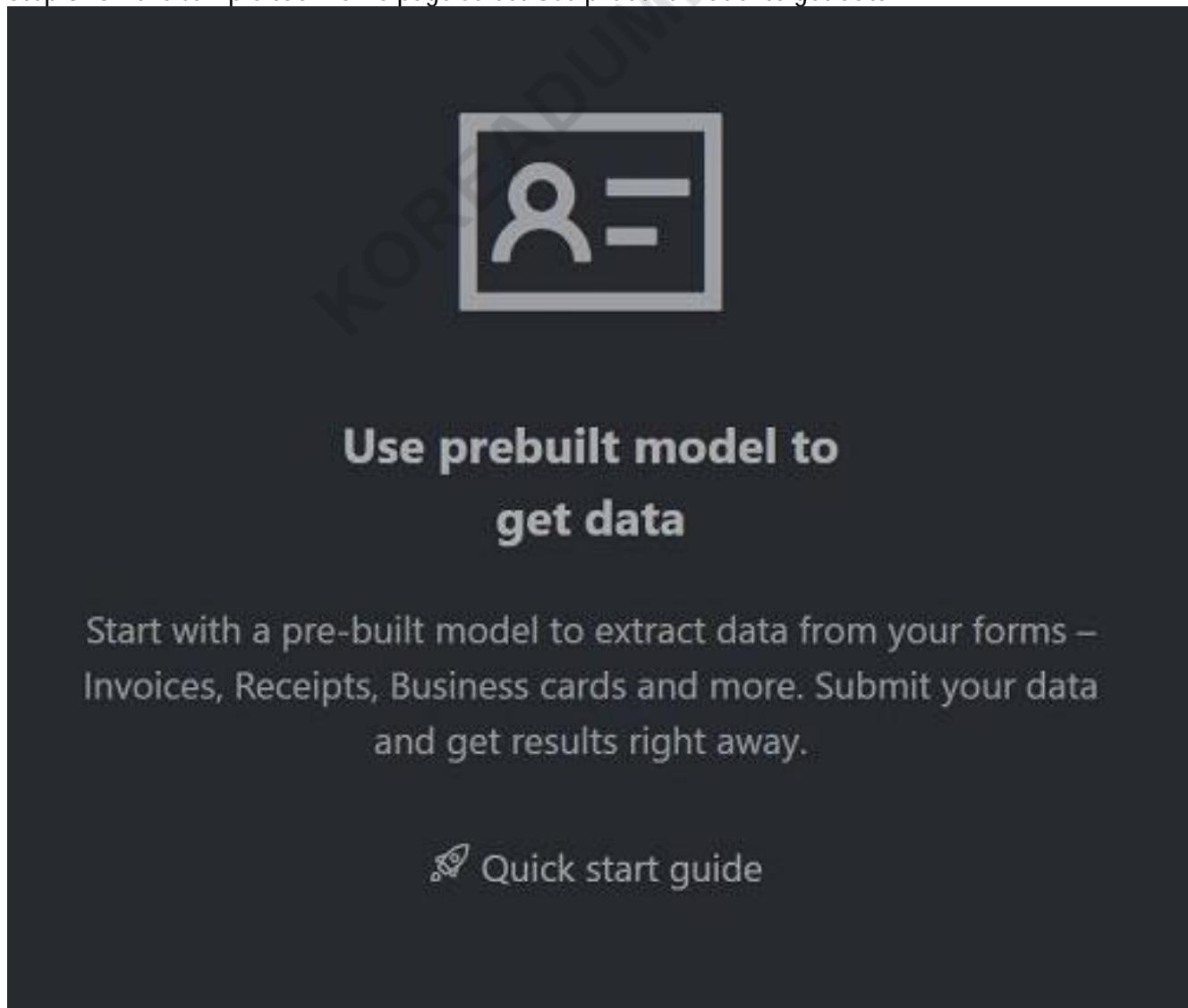
To complete this task, sign in to the Azure portal and open the Azure AI Document Intelligence sample labeling tool.

Answer:

Step 1: Sign in to the Azure Portal.

Step 2: Navigate to the Azure AI Document Intelligence Sample Tool (at <https://fott-2-1.azurewebsites.net/>)

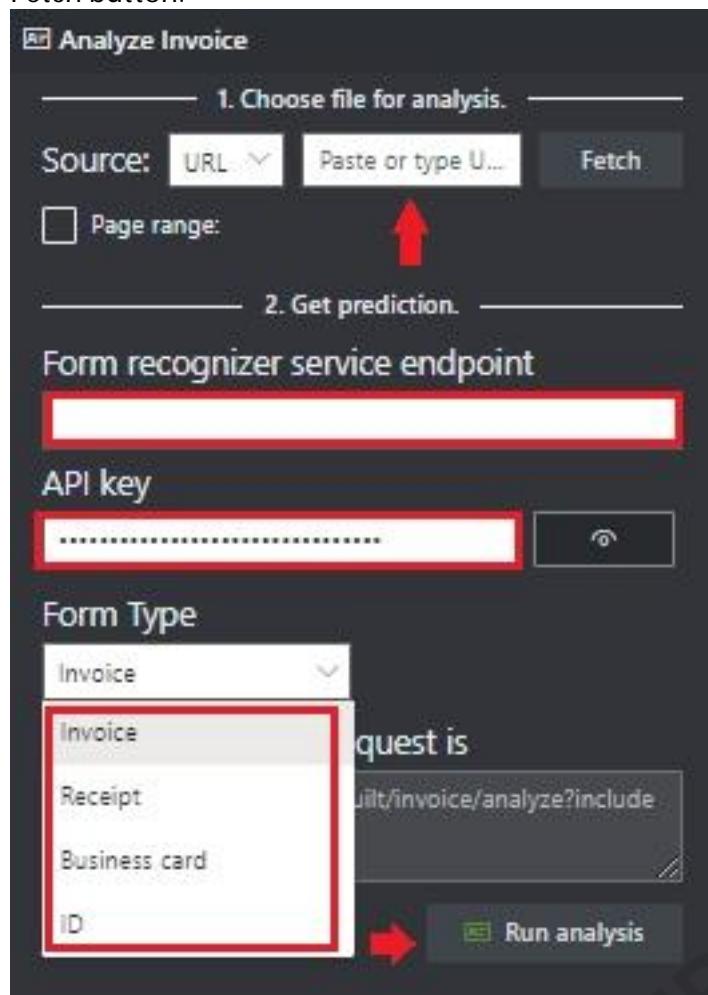
Step 3: On the sample tool home page select Use prebuilt model to get data.



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

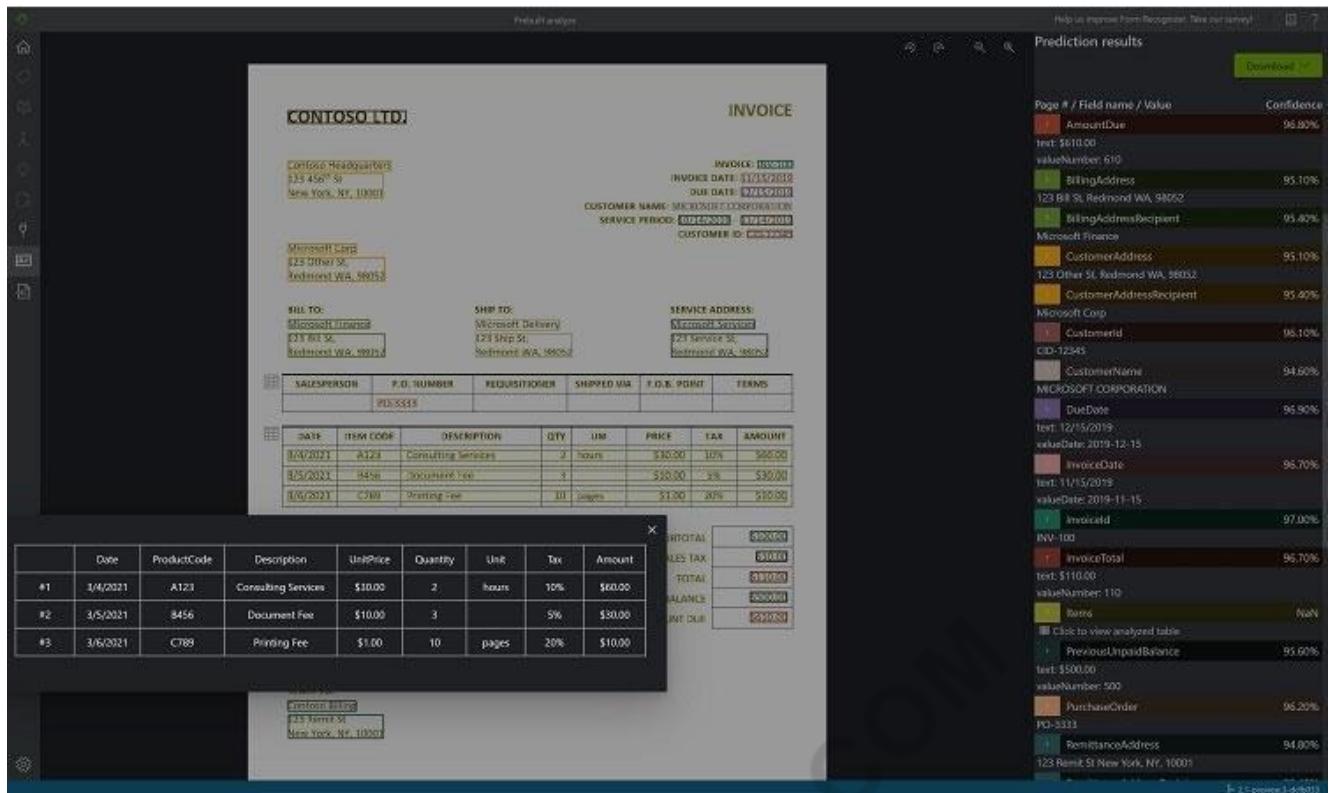
Step 5: In the Source: URL field, paste the selected URL and select the Fetch button.

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 Azure AI Document Intelligence 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.



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

Reference:

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

NO.15 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

A relational database is appropriate for scenarios that involve a high volume of

changes to relationships between entities,
geographically distributed writes,
transactional writes,
writes that have varying data structures.

Answer:

Answer Area

A relational database is appropriate for scenarios that involve a high volume of

changes to relationships between entities,
geographically distributed writes,
transactional writes,
writes that have varying data structures.

NO.16 Hotspot Question

You are building an Azure AI 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. Otherwise, select No.

NOTE: Each correct selection is worth one point.

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 type="radio"/>	<input checked="" 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: No

The property is available for mapping to an index property.

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>
<https://learn.microsoft.com/en-us/azure/search/cognitive-search-concept-annotations-syntax>

NO.17 You are building an app that will use Azure AI to monitor workspaces for safety regulation compliance.

You need to recommend a service that meets the following requirements:

- Generates alerts when employees enter high-risk areas
- Monitors video feeds in real time
- Minimizes development effort

What should you recommend?

A. Azure AI Vision Image Analysis

B. Azure AI Video Indexer

C. Object detection in Azure AI Custom Vision

D. Azure AI Vision Spatial Analysis

Answer: D

Explanation:

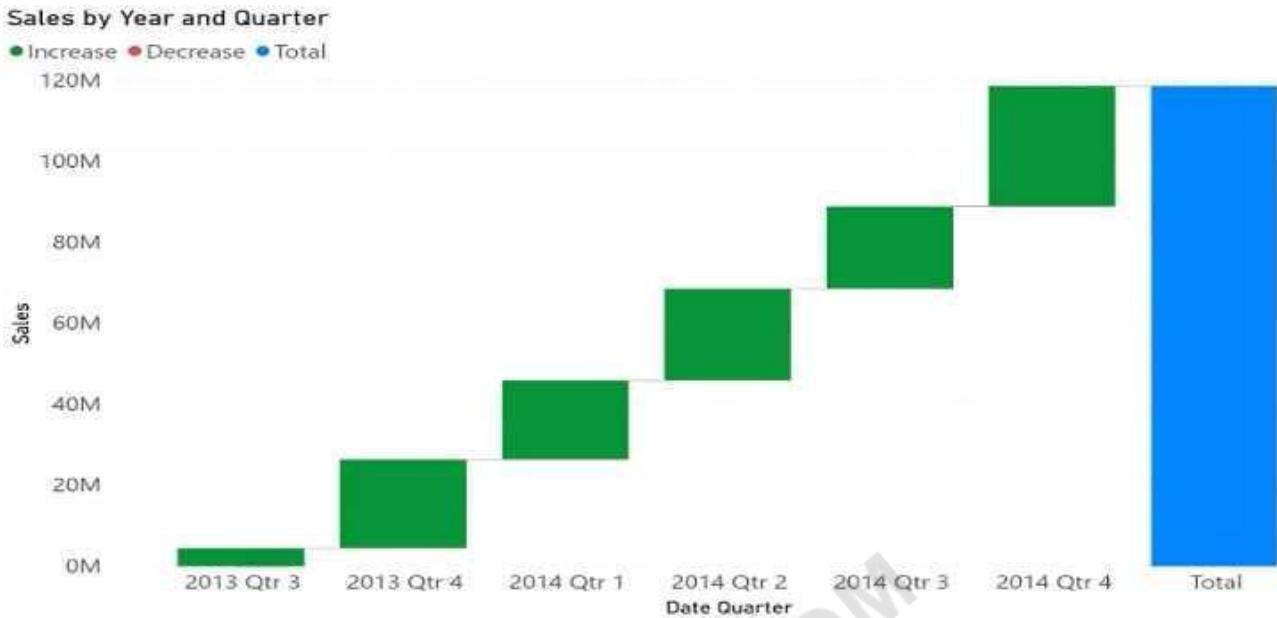
The Spatial Analysis container enables you to analyze real-time streaming video to understand spatial relationships between people, their movement, and interactions with objects in physical environments.

You can use Azure AI Vision Spatial Analysis to detect the presence and movements of people in video. Ingest video streams from cameras, extract insights, and generate events to be used by other systems. The service can do things like count the number of people entering a space or measure compliance with face mask and social distancing guidelines. By processing video streams from physical spaces, you can learn how people use them and maximize the space's value to your organization.

Reference:

<https://docs.azure.cn/en-us/ai-services/computer-vision/intro-to-spatial-analysis-public-preview>

NO.18 You need to create a visualization of running sales totals per quarter as shown in the following exhibit.



What should you create in Power BI Desktop?

- A. a waterfall chart
- B. a ribbon chart
- C. a bar chart
- D. a decomposition tree

Answer: C

NO.19 Hotspot Question

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

api-nam.cognitive.microsofttranslator.com

api-nam.cognitiveservices.azure.com

eastus.api.cognitive.microsoft.com

detect

languages

text-to-speech

translate

Answer:

Answer Area

https:// / ?api-version=3.0&to=es

api.cognitive.microsofttranslator.com

api-nam.cognitive.microsofttranslator.com

api-nam.cognitiveservices.azure.com

eastus.api.cognitive.microsoft.com

detect

languages

text-to-speech

translate

Explanation:

<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.

NO.20 SIMULATION

Use the following login credentials as needed:

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

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

You have a bot that was developed by using the Microsoft Bot Framework SDK. The bot is available at an endpoint of <https://bot.contoso.com/api/messages>.

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

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

Answer:

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.

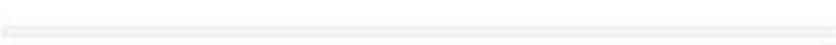


Azure Bot

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

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

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

[Manually create a User Managed Identity](#)

Creation type	<input checked="" type="radio"/> Create new Microsoft App ID
	<input type="radio"/> 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>

NO.21 You have an Azure OpenAI model.

You have 500 prompt-completion pairs that will be used as training data to fine-tune the model.

You need to prepare the training data.

Which format should you use for the training data file?

- A. CSV**
- B. XML**
- C. JSONL**
- D. TSV**

Answer: C

Explanation:

To fine-tune an Azure OpenAI model, the training data needs to be in JSONL (JSON Lines) format. Each line in the file represents a separate prompt-completion pair in JSON format. This format is required to ensure that Azure OpenAI correctly interprets each pair as an individual training instance. <https://learn.microsoft.com/en-us/azure/ai-services/openai/how-to/fine-tuning-functions>

NO.22 Hotspot Question

You are building a chatbot.

You need to use the Content Moderator API to identify aggressive and sexually explicit language.

Which three settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Content Moderator - Moderate

Text - Screen

The operation detects profanity in more than 100 languages and match against custom and shared blacklists.

Host

Name

[resource name].cognitiveser ▾

Resource Name

Query parameters

autocorrect

Value

Remove parameter

PII

Value

Remove parameter

listId

Value

Remove parameter

classify

Value

Remove parameter

language

Value

Remove parameter

Add parameter

Headers

Content-Type

text/plain

Remove header

Ocp-Apim-Subscription-Key

Value

Answer:

Answer Area

Content Moderator - Moderate

Text - Screen

The operation detects profanity in more than 100 languages and match against custom and shared blacklists.

Host

Name	<input type="text" value="[resource name].cognitiveser"/>
Resource Name	<input type="text"/>

Query parameters

autocorrect	<input type="text" value="Value"/>	✖ Remove parameter
PII	<input type="text" value="Value"/>	✖ Remove parameter
listId	<input type="text" value="Value"/>	✖ Remove parameter
classify	<input type="text" value="Value"/>	✖ Remove parameter
language	<input type="text" value="Value"/>	✖ Remove parameter
✚ Add parameter		

Headers

Content-Type	<input type="text" value="text/plain"/>	✖ Remove header
Ocp-Apim-Subscription-Key	<input type="text" value="Value"/>	

NO.23 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>

NO.24 You have an Azure subscription that contains an Azure AI Content Safety resource named CS1.

You plan to build an app that will analyze user-generated documents and identify obscure offensive terms.

You need to create a dictionary that will contain the offensive terms. The solution must minimize development effort.

What should you use?

- A. a text classifier
- B. language detection
- C. text moderation
- D. a blocklist

Answer: D

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/how-to/use-blocklist?tabs=windows%2Crest>

NO.25 You are developing a text processing solution.

You have the following function.

```
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}");
    }
}
```

You call the function and use the following string as the second argument.

Our tour of London included a visit to Buckingham Palace

What will the function return?

- A. London and Buckingham Palace only
- B. Tour and visit only
- C. London and Tour only
- D. Our tour of London included visit to Buckingham Palace

Answer: A**NO.26 Drag and Drop Question**

Drag and Drop Question

You train an Azure AI Custom Vision image classification 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. You must minimize the amount of time and effort required.

Which three actions should you perform in the Azure AI 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.

Actions	Answer Area
Upload the images by category.	
Get suggested tags.	
Upload all the images.	
Group the images locally into category folders.	
Review the suggestions and confirm the tags.	
Tag the images manually.	

Answer:

Actions	Answer Area
Upload the images by category.	
Group the images locally into category folders.	
Tag the images manually.	

Explanation:

Reason being that using the tools (suggested tags) would still apply to the new 1000 images item, even if those 1000 images doesn't associate with the original data pool. So, that means tagging even 1 less image using the suggested tags would still be faster than manually tagging them.

<https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/suggested-tags>

NO.27 Hotspot Question

You are developing a streaming Azure AI Speech to Text solution that will use the Azure AI 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

```

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

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

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

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

    var result = await recognizer.RecognizeOnceAsync();

    var text = result.Text;

}

```

Answer:

Answer Area

```

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

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

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

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

    var result = await recognizer.RecognizeOnceAsync();

    var text = result.Text;

}

```

Explanation:

GetCompressedFormat

[https://docs.microsoft.com/en-](https://docs.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.audio.audiostreamformat.getcompressedformat?view=azure-dotnet)

[us/dotnet/api/microsoft.cognitiveservices.speech.audio.audiostreamformat.getcompressedformat?view=azure-dotnet&#Microsoft_CognitiveServices_Speech_SpeechRecognizer__ctor_Microsoft_CognitiveServices_Speech_SpeechConfig_Microsoft_CognitiveServices_Speech_Audio_AudioConfig_](https://docs.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.audio.audiostreamformat.getcompressedformat?view=azure-dotnet&#Microsoft_CognitiveServices_Speech_SpeechRecognizer__ctor_Microsoft_CognitiveServices_Speech_SpeechConfig_Microsoft_CognitiveServices_Speech_Audio_AudioConfig_)

SpeechRecognizer

[https://docs.microsoft.com/en-](https://docs.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.speechrecognizer.-ctor?view=azure-dotnet&#Microsoft_CognitiveServices_Speech_SpeechRecognizer__ctor_Microsoft_CognitiveServices_Speech_SpeechConfig_Microsoft_CognitiveServices_Speech_Audio_AudioConfig_)

[us/dotnet/api/microsoft.cognitiveservices.speech.speechrecognizer.-ctor?view=azure-dotnet&#Microsoft_CognitiveServices_Speech_SpeechRecognizer__ctor_Microsoft_CognitiveServices_Speech_SpeechConfig_Microsoft_CognitiveServices_Speech_Audio_AudioConfig_](https://docs.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.speechrecognizer.-ctor?view=azure-dotnet&#Microsoft_CognitiveServices_Speech_SpeechRecognizer__ctor_Microsoft_CognitiveServices_Speech_SpeechConfig_Microsoft_CognitiveServices_Speech_Audio_AudioConfig_)

NO.28 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

A block of code that runs in a database is called

a stored procedure.
a table.
a view.
an index.

Answer:**Answer Area**

A block of code that runs in a database is called

a stored procedure.
a table.
a view.
an index.

NO.29 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 subscription that contains an Azure OpenAI resource named AI1 and an Azure AI Content Safety resource named CS1.

You build a chatbot that uses AI1 to provide generative answers to specific questions and CS1 to check input and output for objectionable content.

You need to optimize the content filter configurations by running tests on sample questions.

Solution: From Content Safety Studio, you use the Safety metaprompt feature to run the tests.

Does this meet the requirement?

A. Yes

B. No

Answer: B

Explanation:

The Safety metaprompt feature is generally used to enhance safety by adding specific guidance to the model's responses. However, it is not designed for directly testing or optimizing content filter configurations with sample questions in Content Safety Studio.

To meet the requirement of testing content filters on sample questions, you should use the Moderate text content feature, as it specifically allows you to check for objectionable content in text input and output. Therefore, using the Safety metaprompt feature does not fulfill the requirement.

NO.30 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

NO.31 Hotspot Question

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.

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: An Adaptive Card

Adaptive Cards is a card exchange format adopted by Composer that lets developers define their card content in a common and consistent way using JSON.

Adaptive Cards not only support custom text formatting; they also support the use of containers, speech, images, buttons, customizable backgrounds, user input controls for dates, numbers, text, and even customizable drop-down lists.

Box 2: an image

Reference:

<https://docs.microsoft.com/en-us/microsoftteams/platform/task-modules-and-cards/cards/cards-reference>

<https://docs.microsoft.com/en-us/composer/how-to-send-cards?tabs=v1x>

NO.32 Your company has a reporting solution that has paginated reports. The reports query a dimensional model in a data warehouse.

Which type of processing does the reporting solution use?

- A.** Online Transaction Processing (OLTP)
- B.** Online Analytical Processing (OLAP)
- C.** batch processing
- D.** stream processing

Answer: B

NO.33 You have an Azure OpenAI model named AI1.

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

You need to configure App1 to connect to AI1.

What information must you provide?

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

Answer: C

Explanation:

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

The deployment name of the model that you want to use. This is the name that you assigned to the model when you deployed it.

The endpoint of your Azure OpenAI resource. This is the URL that you can find in the Overview section of your resource in the Azure portal or by using the Azure CLI.

The key of your Azure OpenAI resource. This is the API key that you can find in the Keys and Endpoint section of your resource in the Azure portal or by using the Azure CLI.

NO.34 Drag and Drop Question

You plan to implement an Azure AI Search resource that will use custom skill based on sentiment analysis.

You need to create a custom model and configure Azure AI Search use the model.

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

Actions

- Create an endpoint for the model.
- Rerun the indexer to enrich the index.
- Create an Azure Machine Learning workspace.
- Create and train the model in the Azure Machine Learning studio.
- Provision an Azure AI Services resource and obtain the endpoint.
- Connect the custom skill the endpoint.

Answer Area



Answer:

Actions

Create and train the model in the Azure Machine Learning studio.

Answer Area

Create an Azure Machine Learning workspace.

Provision an Azure AI Services resource and obtain the endpoint.

Create an endpoint for the model.

Connect the custom skill the endpoint.

Rerun the indexer to enrich the index.



Explanation:

<https://learn.microsoft.com/en-us/training/modules/build-azure-machine-learn-custom-skill-for-azure-cognitive-search/03-enrich-search-index-use-model>

NO.35 You have the following files:

- File1.pdf
- File2.jpg
- File3.docx
- File4.webp
- File5.png

Which files can you analyze by using Azure AI Content Understanding?

- A.** File1.pdf and File3.docx only
- B.** File1.pdf, File2.jpg, and File5.png only
- C.** File1.pdf, File2.jpg, and File3.docx only
- D.** File1.pdf, File2.jpg, File3.docx, and File5.png only
- E.** File1.pdf, File2.jpg, File3.docx, File4.webp, and File5.png

Answer: D

Explanation:

Only .webp is not supported. The other file formats are all supported.

Note: Azure AI Content Understanding service quotas and limits

Supported File Types:

- .pdf [File1]
- .tiff
- .jpg, .png, .bmp, .heif [File2, File5]
- .docx, .xlsx, .pptx [File3]
- .txt
- .html, .md, .rtf
- .eml, .msg
- .xml

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/content-understanding/service-limits>

NO.36 A customer uses Azure AI 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:

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 AI 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.

Reference:

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

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

NO.37 You have an Azure AI 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:

Conversation Analysis is a cloud-based conversational AI service that applies custom machine-learning intelligence to a user's conversational, natural language text to predict overall meaning, and pull out relevant, detailed information.

Reference : <https://learn.microsoft.com/en-us/samples/azure/azure-sdk-for-net/azureailanguageconversations-samples/>

NO.38 You are building an app by using the Semantic Kernel.

You need to include complex objects in the prompt templates of the app. The solution must support objects that contain subproperties.

Which two prompt templates can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.** YAML
- B.** Liquid
- C.** Handlebars
- D.** Semantic Kernel

E. JSONL**Answer:** BC

Explanation:

Semantic Kernel provides support for the following template formats:

semantic-kernel - Built-in Semantic Kernel format.

handlebars - Handlebars template format.

liquid - Liquid template format

The Semantic Kernel prompt template language is a simple way to define and compose AI functions using plain text. You can use it to create natural language prompts, generate responses, extract information, invoke other prompts or perform any other task that can be expressed with text.

Reference:

<https://learn.microsoft.com/en-us/semantic-kernel/concepts/prompts/prompt-template-syntax>**NO.39** 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**NO.40** You need to upload speech samples to a Speech Studio project.

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>

NO.41 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

NO.42 Hotspot Question

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.

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
https://westus.api.cognitive.microsoft.com ?width=100&height=100&smartCropping=true" /
-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
https://westus.api.cognitive.microsoft.com ?width=100&height=100&smartCropping=true" /
-d "{\"url\":\"https://upload.litwareinc.org/litware/bicycle.jpg\"}"
```

Explanation:

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

Box 2: generate Thumbnail

GenerateThumbnail takes in Height Width and SmartCropping = True/false and returns the actual binary image data.

Reference:

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

<https://docs.microsoft.com/en-us/rest/api/computervision/3.1/generate-thumbnail/generate-thumbnail#examples>

NO.43 You have an Azure subscription that contains an Azure OpenAI resource named OpenAI1 and a user named User1.

You need to ensure that User1 can upload datasets to OpenAI1 and finetune the existing models.

The solution must follow the principle of least privilege.

Which role should you assign to User1?

- A. Cognitive Services OpenAI Contributor
- B. Cognitive Services Contributor
- C. Cognitive Services OpenAI User
- D. Contributor

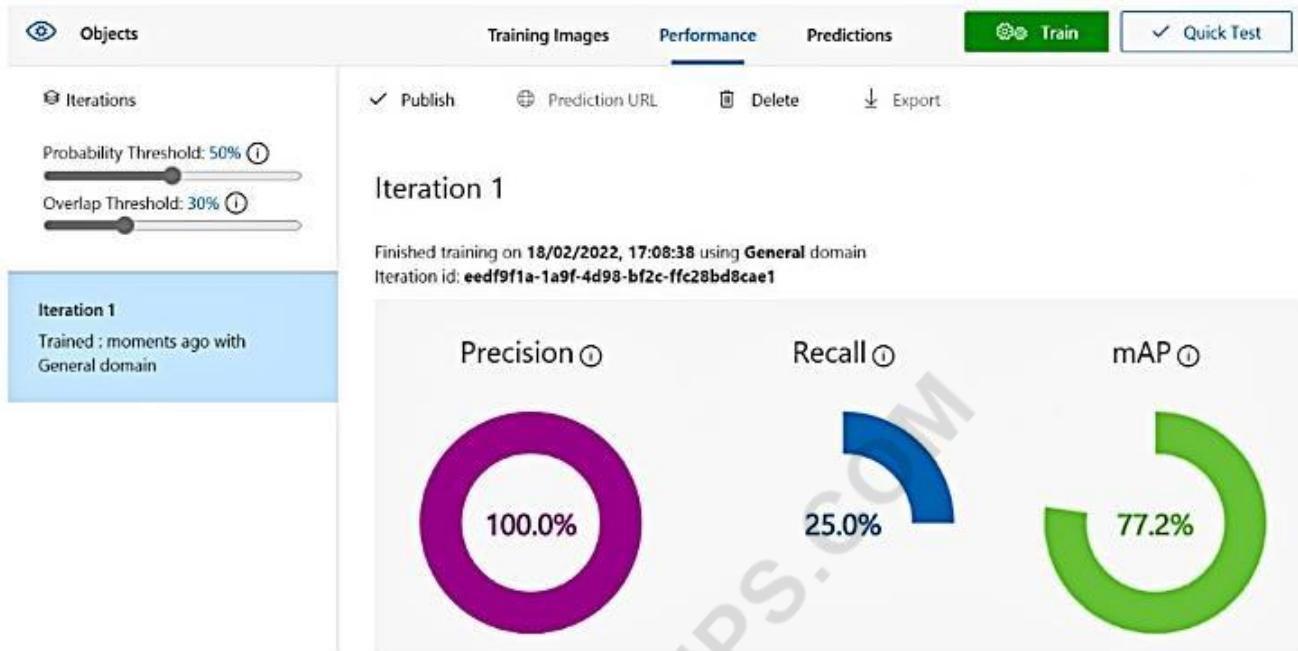
Answer: A**Explanation:**

<https://learn.microsoft.com/en-us/azure/ai-services/openai/how-to/role-based-access-control#cognitive-services-openai-contributor>

NO.44 Hotspot Question

You are building a model to detect objects in images.

The performance of the model based on training data is shown in the following exhibit.



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

NOTE: Each correct selection is worth one point.

Answer Area

The percentage of false positives is [answer choice].

0
25
30
50
100

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

0
25
30
50
100

Answer:

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:

<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.

$$\text{Precision} = \frac{\# \text{True_Positive}}{\# \text{True_Positive} + \# \text{False_Positive}}$$

- 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.

$$\text{Recall} = \frac{\# \text{True_Positive}}{\# \text{True_Positive} + \# \text{False_Negatives}}$$

NO.45 Drag and Drop Question

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. (Choose three.)

Actions

Answer Area

Add a new question and answer (QnA) pair.

Retrain the model.

Add additional questions to the document.

Republish the model.

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

Answer:

Actions

Answer Area

Add a new question and answer (QnA) pair.

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

Add additional questions to the document.

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>

NO.46 Drag and Drop Question

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

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

NOTE: Each correct selection is worth one point.

Values

"faceListId"

"LargeFaceListId"

"matchFace"

"matchPerson"

Answer Area

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

Answer:

Values

"faceListId"

"matchPerson"

Answer Area

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

Explanation:

Box 1: LargeFaceListID

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

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

Incorrect Answers:

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

Box 2: matchFace

Find similar has two working modes, "matchPerson" and "matchFace". "matchPerson" is the default mode that it tries to find faces of the same person as possible by using internal same- person

thresholds. It is useful to find a known person's other photos. Note that an empty list will be returned if no faces pass the internal thresholds. "matchFace" mode ignores same-person thresholds and returns ranked similar faces anyway, even the similarity is low. It can be used in the cases like searching celebrity-looking faces.

Reference:

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

NO.47 Drag and Drop Question

You have a question answering project in Azure AI 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	Answer Area
From the new Language service instance, train and publish the project.	(Up)
From the new Language service instance, import the project file.	(Down)
From the new Language service instance, enable custom text classification.	(Up)
From the original Language service instance, export the existing project.	(Down)
From the new Language service instance, regenerate the keys.	(Up)
From the original Language service instance, train and publish the model.	(Down)

Answer:

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

Explanation:

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

NO.48 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 AI 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:

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>

NO.49 You need to implement a table projection to generate a physical expression of an Azure AI Search index.

Which three properties should you specify in the skillset definition JSON configuration table node? Each correct answer presents part of the solution. (Choose three.) 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:

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

NO.50 You have a 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>

NO.51 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>

NO.52 You have an Azure DevOps pipeline named Pipeline1 that is used to deploy an app. Pipeline1 includes a step that will create an Azure AI services account.

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

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

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

Answer: C

Explanation:

The az cognitiveservices account show command retrieves details about a specified Azure AI Services account, including its properties and settings. By using this command in the Azure DevOps pipeline,

you can identify and confirm the details of the Azure AI services account that was created in a previous step.

NO.53 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

A data analyst
A data engineer
A data scientist
A database administrator

is responsible for creating visuals and charts that help a company make informed decisions.

Answer:

Answer Area

A data analyst
A data engineer
A data scientist
A database administrator

is responsible for creating visuals and charts that help a company make informed decisions.

NO.54 Drag and Drop Question

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

Create a Speaker Recognition model.

Answer Area

Create a Custom Speech project.

Create a speech-to-text model.

Upload training datasets.

Train the model.

Deploy the model.



Create a Conversational Language Understanding model.

NO.55 Drag and Drop Question

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

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

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

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

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

Actions**Answer Area**

Perform an asynchronous translation by using the list of files to be translated.

Perform an asynchronous translation by using the document translation specification.



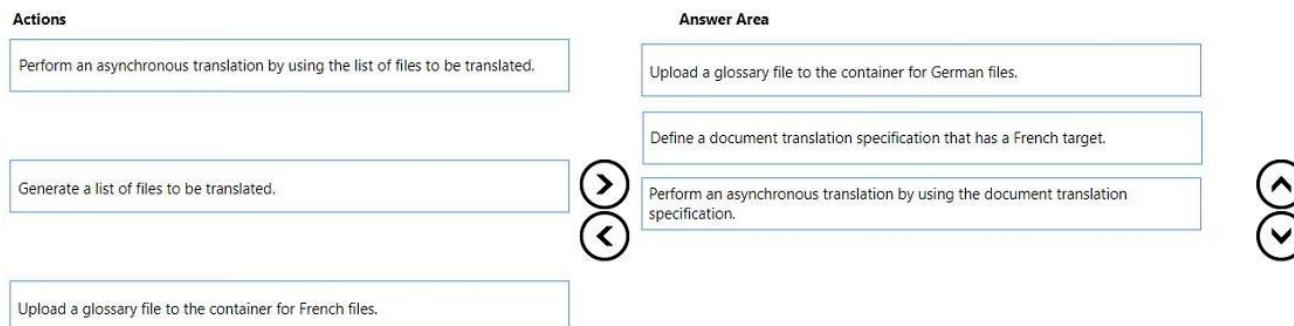
Generate a list of files to be translated.

Upload a glossary file to the container for German files.

Upload a glossary file to the container for French files.

Define a document translation specification that has a French target.

Answer:



NO.56 Hotspot Question

You are building an app that will analyze text by using the Azure AI Language service.

You need to configure the app to mask the telephone number and email details in a given document. 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

```
def scan_text(client):
    documents = ["Call our office at 312-555-1234, or send an email to support@contoso.com."]
    response = client. (documents, language="en")
    RecognizeLinkedEntities
    RecognizePiiEntities
    SingleLabelClassify

    result = [doc for doc in response if not doc.is_error]
    for doc in result:
        print("Masked Text: {}".format(doc.))
    scan_text(client)
    RedactedText
    Statistics
    Warnings
```

Answer:

Answer Area

```
def scan_text(client):
    documents = ["Call our office at 312-555-1234, or send an email to support@contoso.com."]
    response = client. (documents, language="en")
    RecognizePiiEntities
    SingleLabelClassify

    result = [doc for doc in response if not doc.is_error]
    for doc in result:
        print("Masked Text: {}".format(doc.))
    scan_text(client)
    RedactedText
    Statistics
    Warnings
```

Explanation:

Box 1: RecognizePiiEntities

TextAnalyticsClient.RecognizePiiEntities Method

Runs a predictive model to identify a collection of entities containing Personally Identifiable Information found in the passed-in document, and categorize those entities into types such as US social security number, driver's license number, or credit card number.

Box 2: RedactedText

The characterMask policy allows the redactedText to be masked with a character, preserving the length and offset of the original text. This behavior is the existing expectation.

Reference:

<https://learn.microsoft.com/en-us/dotnet/api/azure.ai.textanalytics.textanalyticsclient.recognizepiientities>

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/personally-identifiable-information/how-to/redact-text-pii>

NO.57 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.

NO.58 In Azure AI Studio, you use Completions playground with the GPT-35 Turbo model.

You have a prompt that contains the following code.

```
function F(n)
{
    var f = [0, 1];
    for (var i = 2; i < n; i++) f[i] = f[i-1] + f[i-2];
    return f;
}
```

You need the model to create an explanation of the code. The solution must minimize costs.

What should you do?

A. Change the model to GPT-4-32k.

B. Add // what does function F do? to the prompt.

C. Add function F(explanation) to the prompt.

D. Set the temperature parameter to 1.

Answer: B

Explanation:

By adding a comment like // what does function F do? to the prompt, you are instructing the GPT model to provide an explanation of the function's behavior. This approach directly asks the model to explain the code, which will help generate an explanation without requiring changes to the model or additional resource-intensive configurations.

NO.59 Hotspot Question

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.

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 type="radio"/>	<input checked="" 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: No

Greet(User) is a Send a response action.

Box 3: Yes

Reference:

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

NO.60 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. Azure AI 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/>

NO.61 What is the primary purpose of a data warehouse?

- A.** to provide storage for transactional line-of-business (LOB) applications
- B.** to provide transformation services between source and target data stores
- C.** to provide read only storage of relational and non relational historical data
- D.** to provide answers to complex queries that rely on data from multiple sources

Answer: C

NO.62 Hotspot Question

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.

ConversationData

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(Conversation Data)); 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="radio"/>	<input type="radio"/>
The code will create and maintain the <code>ConversationData</code> object in the underlying storage layer.	<input checked="" 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 checked="" type="radio"/>

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>

NO.63 You have a Microsoft OneDrive folder that contains a 20-GB video file named `File1.avi`.

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

What should you do?

- A.** Upload `File1.avi` to the www.youtube.com webpage, and then copy the URL of the video to the Azure AI Video Indexer website.
- B.** Download `File1.avi` to a local computer, and then upload the file to the Azure AI Video Indexer website.

C. From OneDrive, create a download link, and then copy the link to the Azure AI Video Indexer website.

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

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/odrv-download>

NO.64 You are designing a content management system.

You need to ensure that the reading experience is optimized for users who have reduced comprehension and learning differences, such as dyslexia. The solution must minimize development effort.

Which Azure service should you include in the solution?

- A.** Azure AI Immersive Reader
- B.** Azure AI Translator
- C.** Azure AI Document Intelligence
- D.** Azure AI Language

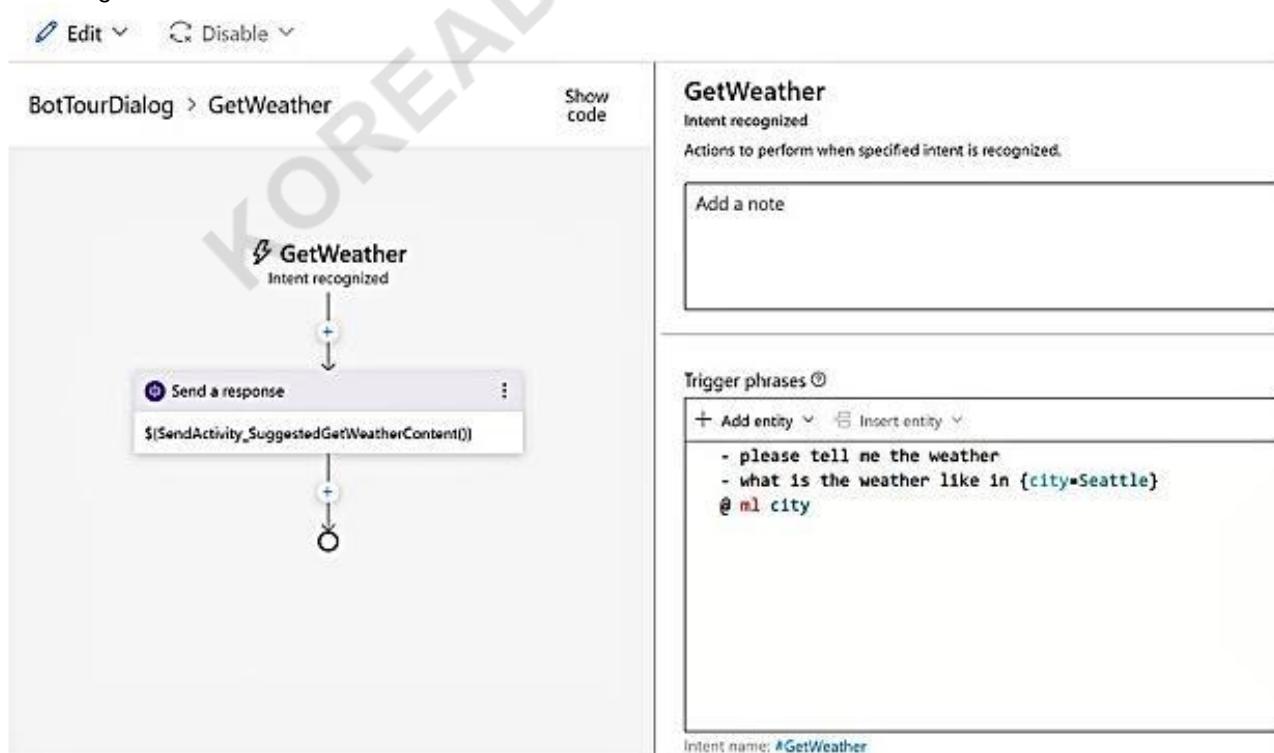
Answer: A

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/immersive-reader/overview>

NO.65 Hotspot Question

You have a bot that was built by using the Microsoft Bot Framework composer as shown in the following exhibit.



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

NOTE: Each correct selection is worth one point.

Answer Area

If a user asks "what is the weather like in New York", the bot will [answer choice].

The GetWeather dialog uses a [answer choice] trigger.

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:

<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>} notation.

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

NO.66 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 subscription that contains an Azure OpenAI resource named AI1 and an Azure AI Content Safety resource named CS1.

You build a chatbot that uses AI1 to provide generative answers to specific questions and CS1 to check input and output for objectionable content.

You need to optimize the content filter configurations by running tests on sample questions.

Solution: From Content Safety Studio, you use the Moderate text content feature to run the tests.

Does this meet the requirement?

A. Yes

B. No

Answer: A

Explanation:

The Moderate text content feature in Content Safety Studio is designed to detect objectionable or harmful content in text. By using this feature, you can effectively test and optimize content filtering configurations by running sample questions and analyzing the responses for inappropriate content. This approach meets the requirement of optimizing the content filter configurations for your chatbot's input and output.

NO.67 Case Study 1 - Wide World Importers**Overview****Existing Environment**

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"
}
```

Hotspot Question

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.

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

The case study specifically states under Business Requirements "Data storage and processing must

occur in datacenters located in the United States." Box 2: /translate Reference: <https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-translate>

NO.68 Hotspot Question

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

Answer:

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 bottom-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

If several logs are detected, or the logo image and the stylized brand name are detected as two separate logos, it starts numbering them from the bottom-left corner.

Box 3: No

Note:

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.

Reference:

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

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

NO.69 What should you use to automatically delete blobs from Azure Blob Storage?

- A.** the change feed
- B.** a lifecycle management policy
- C.** soft delete
- D.** archive storage

Answer: B

Explanation:

Azure Storage lifecycle management offers a rule-based policy that you can use to transition blob data to the appropriate access tiers or to expire data at the end of the data lifecycle.

NO.70 Drag and Drop Question

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. (Choose three.)

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.
Migrate authoring to an Azure resource authoring key.	Train and republish the Language Understanding model.
Enable log collection by using Log Analytics.	

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.

Reference:

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

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

NO.71 You build a chatbot that uses the Azure OpenAI GPT-4 model to generate song lyrics.

You need to ensure that responses do NOT contain lyrics from popular songs that might have been ingested during model training.

Which Azure AI Content Safety API should you use?

- A. Custom categories
- B. Analyze Text
- C. Groundedness detection
- D. Protected material text detection

Answer: D

Explanation:

The Protected material text detection feature in Azure AI Content Safety is specifically designed to identify and block responses that may contain copyrighted or protected content, such as lyrics from popular songs. Since GPT-4 may have been trained on publicly available data, this feature helps

ensure that the chatbot does not generate copyrighted lyrics by detecting and filtering out protected material.

NO.72 You have an app that analyzes images by using the Azure AI 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.

NO.73 You have an Azure subscription.

You plan to build an app that will use the Azure OpenAI DALL-E model.

You need to deploy the model.

What should you use?

- A.** the Azure SDK for Python and PowerShell cmdlets
- B.** the Azure portal and Microsoft Graph API
- C.** the Azure SDK for JavaScript and Azure Machine Learning Studio
- D.** Azure AI Studio and Azure Command-Line Interface (CLI)

Answer: D

Explanation:

To deploy the Azure OpenAI DALL-E model, the most appropriate tools to use are Azure AI Studio for model management and interaction, and the Azure Command-Line Interface (CLI) for deployment and configuration tasks. Azure AI Studio provides an interactive interface for working with Azure AI models, and the Azure CLI allows you to manage resources, deployments, and other Azure services from the command line.

NO.74 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

The massively parallel processing (MPP) engine
of Azure Synapse Analytics

distributes processing across compute nodes.
distributes processing across control nodes.
redirects client connections across compute nodes.
redirects client connections across control nodes.

Answer:

Answer Area

The massively parallel processing (MPP) engine
of Azure Synapse Analytics

distributes processing across compute nodes.
distributes processing across control nodes.
redirects client connections across compute nodes.
redirects client connections across control nodes.

NO.75 Hotspot Question

You have an Azure subscription that contains an Azure OpenAI resource named AI1.
You build a chatbot that will use AI1 to provide generative answers to specific questions.
You need to ensure that the responses are more creative and less deterministic.
How should you complete the code? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Answer Area

```
new ChatCompletionsOptions()
{
    Messages =
    {
        new ChatMessage(
    },
    , @"""),
    ChatRole.Assistant
    ChatRole.Function
    ChatRole.System
    ChatRole.User
    = (float)1.0,
    ChatRole.User
    PresencePenalty
    Temperature
    TokenSelectionBiasses
    MaxTokens = 800,
});
```

Answer:

Answer Area

```

new ChatCompletionsOptions()

{
    Messages =
    {
        new ChatMessage(
    },
    , @"""),
    ChatRole.Assistant
    ChatRole.Function
    ChatRole.System
    ChatRole.User
    = (float)1.0,
    ChatRole.User
    PresencePenalty
    Temperature
    TokenSelectionBiases
    MaxTokens = 800,
});

```

NO.76 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:

Step 1: Open Microsoft Bot Framework Composer

Step 2: Select the bot bot12345678

Step 3: Select Configure.

Step 4: Select the Azure Language Understanding tab

Step 5: Select the Set up Language Understanding button. The Set up Language Understanding window will appear, shown below:

Set up Language Understanding



To understand natural language input and direct the conversation flow, your bot needs a language understanding service. [Learn more](#)

- Use existing resources
- Create and configure new Azure resources
- Generate instructions for Azure administrator

Next

Cancel

Step 6: Select Use existing resources and then select Next at the bottom of the window.

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

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

Select Language Understanding resources



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

Key
[REDACTED]

Region
[REDACTED]

Done

Step 9. Select Done

Reference:

<https://docs.microsoft.com/en-us/composer/concept-language-understanding>

<https://docs.microsoft.com/en-us/composer/how-to-add-luis>

NO.77 SIMULATION

Use the following login credentials as needed:

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

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

You need to create a version of the 1u12345678 Language Understanding (classic) model. The new version must have a version name of 1.0 and must be active.

To complete this task, sign in to the Language Understanding portal at <https://www.luis.ai/>.

Answer:

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>

NO.78 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:

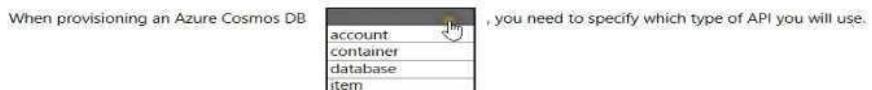
<https://learn.microsoft.com/en-us/azure/cognitive-services/computer-vision/language->

support#image-analysis Some features of the Analyze - Image API can return results in other languages, specified with the language query parameter. Other actions return results in English regardless of what language is specified, and others throw an exception for unsupported languages. Actions are specified with the visualFeatures and details query parameters; see the Overview for a list of all the actions you can do with image analysis. Languages for tagging are only available in API version 3.2 or later.

NO.79 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area



Answer:

Answer Area



NO.80 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 Conversational Language Understanding.

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

Does this meet the goal?

A. Yes

B. No

Answer: B

Explanation:

Instead, use a new intent for location. Note: An intent represents a task or action the user wants to perform. It is a purpose or goal expressed in a user's utterance. Define a set of intents that corresponds to actions users want to take in your application.

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/concepts/patterns-features#patterns-do-not-improve-machine-learning-entity-detection>

NO.81 Hotspot Question

You have an Azure subscription that contains an Azure AI Document Intelligence resource named DI1. You create a PDF document named Test.pdf that contains tabular data.

You need to analyze Test.pdf by using DI1.

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

```
curl -v -i POST "{endpoint}/formrecognizer/documentModels/" :analyze?api-version=2023-07-31" -H "Content-Type: application/json"
-H : {yourkey}" --data-ascii "[{'urlSource': 'test.pdf'}]"
-H Key1
-H Ocp-Apim-Subscription-Key
-H Secret
-H Subscription-Key
```

The code block shows a curl command for analyzing a PDF file named test.pdf. It includes headers for API version, content type, and subscription keys. A dropdown menu above the command lists four options: prebuilt-contract, prebuilt-document, prebuilt-layout, and prebuilt-read. The prebuilt-layout option is highlighted with a green background.

Answer:

Answer Area

```
curl -v -i POST "{endpoint}/formrecognizer/documentModels/" :analyze?api-version=2023-07-31" -H "Content-Type: application/json"
-H : {yourkey}" --data-ascii "[{'urlSource': 'test.pdf'}]"
-H Key1
-H Ocp-Apim-Subscription-Key
-H Secret
-H Subscription-Key
```

The code block shows a curl command for analyzing a PDF file named test.pdf. It includes headers for API version, content type, and subscription keys. A dropdown menu above the command lists four options: prebuilt-contract, prebuilt-document, prebuilt-layout, and prebuilt-read. The prebuilt-layout option is highlighted with a green background. Below the dropdown, the 'Ocp-Apim-Subscription-Key' header is also highlighted with a green background.

NO.82 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 AI Search
- E.** Azure App Service

Answer: DE

Explanation:

At the creation, we have to precise Azure Search an Azure Web App details.

When you create a QnAMaker resource, you host the data in your own Azure subscription. Azure Search is used to index your data.

When you create a QnAMaker resource, you host the runtime in your own Azure subscription.

App Service is the compute engine that runs the QnA Maker queries for you.

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

NO.83 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:

<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.

NO.84 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 AI Services service should you use?

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

Answer: A

Explanation:

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

NO.85 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

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

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

Answer:

Manually rotate subscription keys

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

Reference:

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

NO.86 You are building a Conversational Language Understanding model for an e-commerce chatbot.

Users can speak or type their billing address when prompted by the chatbot.

You need to construct an entity to capture billing addresses.

Which entity type should you use?

- A.** machine learned
- B.** Regex
- C.** list
- D.** Pattern.any

Answer: A

Explanation:

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

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

NO.87 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

NO.88 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:

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.

NO.89 You have a blog that allows users to append feedback comments. Some of the feedback comments contain harmful content that includes discriminatory language.

You need to create a prototype of a solution that will detect the harmful content. The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

- A. Sign in to Content Safety Studio and select Moderate text content.
- B. Sign in to Content Safety Studio and select Protected material detection for text.
- C. From the Azure portal, create an Azure AI Content Safety resource.
- D. Sign in to Azure AI Foundry and select Safety + security.
- E. From the Azure portal, create an Azure OpenAI resource.

Answer: AC

Explanation:

A: The Azure AI Content Safety Studio is a tool that helps detect harmful content in text, images, and multimodal formats like memes. It uses machine learning models to identify potentially offensive, risky, or undesirable content, offering both pre-defined and customizable moderation categories. This allows for a more tailored approach to content moderation, going beyond basic content safety options.

C: Get started with the Content Safety Studio, REST API, or client SDKs to do basic text moderation. The Azure AI Content Safety service provides you with AI algorithms for flagging objectionable content.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/overview>

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/quickstart-text>

NO.90 Hotspot Question

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.

Answer Area

Statements	Yes	No
Going to <code>http://localhost:5000/status</code> 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 <code>http://localhost:5000/swagger</code> 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 <code>http://localhost:5000/status</code> will query the Azure endpoint to verify whether the API key used to start the container is valid.	<input checked="" type="radio"/>	<input type="radio"/>
The container logging provider will write log data.	<input type="radio"/>	<input checked="" type="radio"/>
Going to <code>http://localhost:5000/swagger</code> will provide the details to access the documentation for the available endpoints.	<input checked="" type="radio"/>	<input type="radio"/>

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

Log location is not mounted. The ET answer relates to an example provided on the given website which DOES mount a log location.

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>

NO.91 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

When using the Azure Cosmos DB Gremlin API, the container resource type is projected as a

graph
table
partition key
document

Answer:**Answer Area**

When using the Azure Cosmos DB Gremlin API, the container resource type is projected as a

graph
table
partition key
document

NO.92 Drag and Drop Question

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

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

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

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

Actions

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

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

- From Vision Studio, open the project.
- From the Azure Machine Learning studio, open the workspace.

Answer Area

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

**NO.93 Drag and Drop Question**

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 AI 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.

Services**Answer Area**

Speaker Recognition

Speech to Text

Text Analytics

Text to Speech

Translator

Detect the incoming language:

Respond in the callers' own language:

Answer:**Services****Answer Area**

Speaker Recognition

Detect the incoming language:

Speech to Text

Text Analytics

Respond in the callers' own language:

Text to Speech

Translator

Explanation:

Box 1: Speech-to-text

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

Box 2: Text to Speech

The output is voice. 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.

Reference:

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

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

NO.94 Drag and Drop Question

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.

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",  
    "largeFaceListId": "sample_list",  
    "maxNumOfCandidatesReturned": 10,  
    "mode": " [ ] "  
}
```

Answer:

Values

detect
group
identify
matchFace
verify

Answer Area

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

Explanation:

Box 1: findsimilar

It is the only one whose body parameters correspond.

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>

<https://docs.microsoft.com/en-us/rest/api/faceapi/face/find-similar?tabs=HTTP#find-similar-results-example>

NO.95 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>

NO.96 You have an Azure subscription that contains an Azure AI Document Intelligence resource named Aldoc1 in the S0 tier.

You have the files shown in the following table.

Name	Format	Password-locked	Size (MB)
File1	JPG	N/A	400
File2	PDF	No	250
File3	PNG	N/A	600
File4	XLSX	No	900
File5	PDF	Yes	160

You need to train a custom extraction model by using Aldoc1.

Which files can you upload to Document Intelligence Studio?

- A.** File1, File2, and File4 only
- B.** File2, and File5 only
- C.** File2, File4, and File5 only
- D.** File1, File2, File3, File4, and File5
- E.** File1 and File2 only

Answer: E

Explanation:

Azure AI Document Intelligence operates on the raw content of the PDF to extract text, tables, and other elements. Encryption prevents the service from accessing the necessary data for processing.

<https://learn.microsoft.com/en-us/azure/ai-services/document-intelligence/service-limits?view=doc-intel-4.0.0>

NO.97 You have an Azure subscription.

You need to deploy an Azure AI Search resource that will recognize geographic locations. Which built-in skill should you include in the skillset for the resource?

- A. AzureOpenAIEmbeddingSkill
- B. DocumentExtractionSkill
- C. EntityRecognitionSkill
- D. EntityLinkingSkill

Answer: C

Explanation:

The EntityRecognitionSkill in Azure AI Search is a built-in skill designed to identify and recognize specific types of entities within text, including geographic locations (such as cities, countries, and landmarks), as well as other entities like people and organizations. This makes it the appropriate choice for a skillset intended to recognize geographic locations.

NO.98 You are building a chatbot.

You need to ensure that the chatbot can classify user input into separate categories. The categories must be dynamic and defined at the time of inference.

Which service should you use to classify the input?

- A. Azure AI Language custom named entity recognition (NER)
- B. Azure AI Language custom text classification
- C. Azure OpenAI text classification
- D. Azure OpenAI text summarization

Answer: C

Explanation:

To classify user input into separate categories that are dynamic and defined at the time of inference, Azure OpenAI text classification is the best option. OpenAI models such as GPT can dynamically classify text into categories based on context and user-defined instructions. Since the categories need to be flexible and determined at inference time, OpenAI's natural language understanding capabilities are well-suited for this task.

NO.99 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

You need to build an API that uses the service in Azure AI 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:

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>

NO.100 Which property of a transactional workload guarantees that each transaction is treated as a single unit that either succeeds completely or fails completely?

- A. isolation
- B. atomicity
- C. consistency
- D. durability

Answer: B

NO.101 Hotspot Question

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.

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,Descnption

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,Descnption

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:**Box 1:**

<https://westus.api.cognitive.microsoft.com/customvision/v3.1/prediction/projectid/classify/iterations/publishName/image> Box 2:

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

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

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

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

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept-detecting-adult-content>

<https://docs.microsoft.com/en-us/azure/cognitive-services/content-moderator/try-image-api>

<https://docs.microsoft.com/en-us/legal/cognitive-services/custom-vision/custom-vision-cvs-transparency-note>

NO.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 AI 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.** Migrate the data in Sales to the MongoDB API.
- 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 AI 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>

NO.103 Hotspot Question

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

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

NO.104 Hotspot Question

You are building an app that will provide users with definitions of common AI terms.

You create the following Python code.

```
...
openai.api_key = key
openai.api_base = endpoint
response = openai.ChatCompletion.create(
    engine=deployment_name
    messages=[
        {"role": "system", "content": "You are a helpful assistant."},
        {"role": "user", "content": "What is an LLM?"}
    ]
)

print(response['choices'][0]['message']['content'])
...
```

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 response will contain an explanation of large language models (LLMs) that has a high degree of certainty.	<input type="radio"/>	<input type="radio"/>
Changing "What is an LLM?" to "What is an LLM in the context of AI models?" will produce the intended response.	<input type="radio"/>	<input type="radio"/>
Changing "You are a helpful assistant." to "You must answer only within the context of AI language models." will produce the intended response.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area	Yes	No
Statements		
The response will contain an explanation of large language models (LLMs) that has a high degree of certainty.	<input type="radio"/>	<input checked="" type="radio"/>
Changing "What is an LLM?" to "What is an LLM in the context of AI models?" will produce the intended response.	<input checked="" type="radio"/>	<input type="radio"/>
Changing "You are a helpful assistant." to "You must answer only within the context of AI language models." will produce the intended response.	<input checked="" type="radio"/>	<input type="radio"/>

NO.105 You have an Azure subscription that contains an Azure AI Content Safety resource named CS1.

You create a test image that contains a circle.

You submit the test image to CS1 by using the curl command and the following command-line parameters.

```
--data-raw '{
  "image": {
    "content": "<base_64_string>"
  },
  "categories": [
    "Violence"
  ],
  "outputType": "EightSeverityLevels"
}'
```

What should you expect as the output?

- A.** 0
- B.** 0.0

C. 7**D. 100****Answer:** A

Explanation:

The severity levels are from 0 - 7, with 0 being the lowest, if any form of offensive material, and 7 being very naughty/offensive.

NO.106 Hotspot Question

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.

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
    . . .
    . . .

conn.request("POST", "/translate?to=en", str(body), headers)
    . . .
    . . .

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

```

The screenshot shows a code editor with several dropdown menus open. One dropdown menu for 'URL' contains three options: "api.cogninve.microsofttranslator.com", "api-apc.cognitive.microsofttranslator.com", and "api-nam.cognitive.microsofttranslator.com". Another dropdown menu for 'headers' contains five options: "/translate?fr=nn&to=en", "/translate?suggestFrom=en", "/translate?to=en", "/detect?to=en", and "/detect?from=en".

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 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>

NO.107 Hotspot Question

You are building an agent that will retrieve the current time at a given location by using a custom API.

You need to test the functionality of the custom API.

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

```
curl https://cu1.services.ai.azure.com/ ?api-version=2024-12-01-preview \
-H "Authorization: Bearer $AZURE_AI_TOKEN" \
-H "Content-Type: application/json" \
-d '{
    "instructions": "You are a weather bot. Use the provided functions to answer questions.",
    "model": "gpt-4o-mini",
    "function": {
        "name": "get_current_time",
        "description": "Get the current time in location",
        "parameters": {
            "type": "object",
            "properties": {
                "location": {"type": "string", "description": "The city name, for example Seattle"}
            },
            "required": ["location"]
        }
    }
}'
```

Answer:

Answer Area

```

curl https://cu1.services.ai.azure.com/
?api-version=2024-12-01-preview \
-H "Authorization: Bearer $AZURE_AI_TOKEN" \
-H "Content-Type: application/json" \
-d '{
    "instructions": "You are a weather bot. Use the provided functions to answer questions.",
    "model": "gpt-4o-mini",
    "functions": [
        {
            "name": "get_current_time",
            "description": "Get the current time in location",
            "parameters": {
                "type": "object",
                "properties": {
                    "location": {"type": "string", "description": "The city name, for example Seattle"}
                },
                "required": ["location"]
            }
        },
        ...
    ]
}'

```

NO.108 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

You need to create and publish a Language Understanding (classic) model named 1u12345678.

The model will contain an intent of Travel that has an utterance of Boat.

To complete this task, sign in to the Language Understanding portal at <http://www.luis-ai/>.

Answer:

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.

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>

NO.109 Hotspot Question

You are developing a text processing solution.

You develop the following method.

```
def get_key_phrases(text_analytics_client, text):
    response = text_analytics_client.extract_key_phrases(text, language="en")
    print('Key phrases:')
    for keyphrase in response.key_phrases:
        print(f'\t{keyphrase}')
```

You call the method by using the following code.

get_key_phrases(text_analytics_client, "the cat sat on the mat")

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The call will output key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
The call will output key phrases from the input string to the console.	<input checked="" type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input checked="" type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/key-phrase-extraction>

extraction/quickstart?pivots=programming-language-csharp

NO.110 How can you enable a conversational customer support solution through both email and web chat?

- A.** Create a bot for web chat. Send an automated response to email, directing users to web chat.
- B.** Create a bot for email, and a second bot for web chat.
- C.** Create a single bot and deliver it through both web chat and email channels.

Answer: C

Explanation:

You can create a single bot and connect it to multiple channels, including web chat and email.

NO.111 You have a product knowledgebase that contains multiple PDF documents.

You need to build a chatbot that will provide responses based on data in the knowledgebase. The solution must minimize development effort and costs.

What should you include in the solution?

- A.** Azure AI Language conversational language understanding (CLU)
- B.** Azure AI language detection
- C.** Azure AI Language custom question answering
- D.** Azure OpenAI

Answer: C

Explanation:

To build a chatbot that provides responses based on data in a knowledgebase of PDF documents, Azure AI Language custom question answering is the best option. This service allows you to quickly create a knowledge-based chatbot by extracting information from documents (such as PDFs) and answering questions based on that content. It minimizes development effort and costs since it provides an out-of-the-box solution for handling questions and generating answers based on unstructured data like PDFs.

NO.112 Drag and Drop Question

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

You provision an Azure AI Services resource.

You need to ensure that the app can make requests to the Azure AI Language service endpoint.

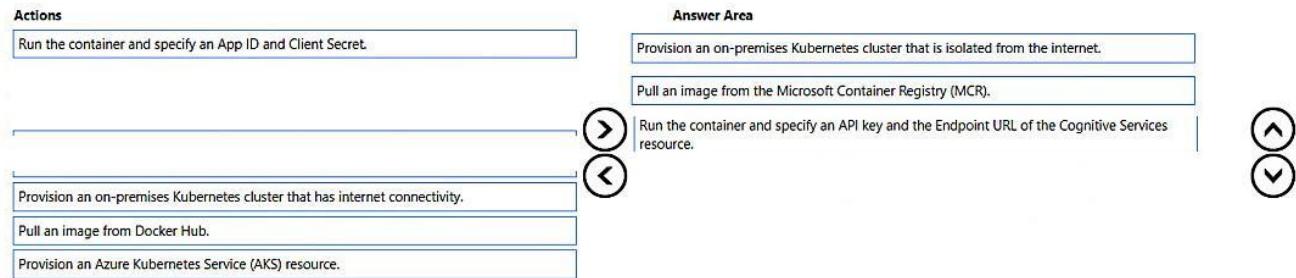
The solution must ensure that confidential documents remain on-premises.

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.	



Answer:



Explanation:

<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.

NO.113 Hotspot Question

You are developing an application that will use the Azure AI 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.

Answer Area

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

Answer:

Answer Area

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

Explanation:

Reference:

<https://learn.microsoft.com/en-us/rest/api/computervision/analyze-image-in-stream/analyze-image-in-stream>

NO.114 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>

NO.115 You have an Azure subscription that contains an Azure OpenAI resource.

You deploy the GPT-4 model to the resource.

You need to ensure that you can upload files that will be used as grounding data for the model.

Which two types of resources should you create? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.** Azure AI Document Intelligence
- B.** Azure AI Search

- C. Azure SQL
- D. Azure Blob Storage
- E. Azure AI Bot Service

Answer: BD

Explanation:

Azure OpenAI On Your Data enables you to run advanced AI models such as GPT-35-Turbo and GPT-4 on your own enterprise data without needing to train or fine-tune models.

For some data sources such as uploading files from your local machine (preview) or data contained in a blob storage account (preview), Azure AI Search is used.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/openai/concepts/use-your-data>

NO.116 You are building an app that will analyze documents by using the Azure AI Language service. You need to identify industry-specific technical terms in the documents. The solution must minimize development effort.

What should you use?

- A. custom named entity recognition (NER)
- B. conversational language understanding (CLU)
- C. language detection
- D. key phrase extraction

Answer: A

Explanation:

Named Entity Recognition (NER) is a fundamental task in Natural Language Processing (NLP) that involves locating and classifying named entities mentioned in unstructured text into predefined categories such as names, organizations, locations, dates, quantities, percentages, and monetary values. NER serves as a foundational component in various NLP applications, including information extraction, question answering, machine translation, and sentiment analysis.

Reference:

<https://encord.com/blog/named-entity-recognition/>

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

NO.117 Hotspot Question

In Azure OpenAI Studio, you are prototyping a chatbot by using Chat playground.

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

- Reduce the repetition of words in conversations.
- Reduce the randomness of each response.

Which two parameters should you modify? To answer, select the appropriate parameters in the answer area.

NOTE: Each correct answer is worth one point.

Answer Area**Chat session**

Clear chat View code Show raw JSON

**Start chatting**

Test your assistant by sending queries below. Then adjust your assistant setup to improve the assistant's responses.

Type user query here. (Shift + Enter for new line)

Configuration X

Deployment Parameters

Max response ⓘ	800
Temperature ⓘ	0.99
Top P ⓘ	0.37
Stop sequence ⓘ	Stop sequences
Frequency penalty ⓘ	0
Presence penalty ⓘ	0

[Learn more](#)

Current token count ⓘ

Input tokens progress indicator

1/4000

Answer:

Answer Area**Chat session**

Clear chat View code Show raw JSON



Start chatting

Test your assistant by sending queries below. Then adjust your assistant setup to improve the assistant's responses.

Type user query here. (Shift + Enter for new line)

Configuration

Deployment Parameters

Max response ⓘ 800

Temperature ⓘ 0.99

Top P ⓘ 0.37

Stop sequence ⓘ
 Stop sequences

Frequency penalty ⓘ 0

Presence penalty ⓘ 0

[Learn more](#)

Current token count ⓘ

Input tokens progress indicator

1/4000

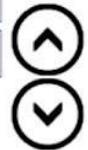
NO.118 Drag and Drop Question

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.

From Content model customization, select **Language**.

Sign in to the Custom Vision website.

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:**

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

NO.119 Hotspot Question

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.

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";
var endpoint = "https://api.cognitive.microsofttranslator.com/transliterate";
var endpoint = "https://api-apc.cognitive.microsofttranslator.com/detect";
var endpoint = "https://api-nam.cognitive.microsofttranslator.com/detect";
var endpoint = "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:

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

NO.120 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 AI Services resource.

Which Azure AI Speech API endpoint provides users with the available voice options?

A.

<https://uksouth.customvoice.apispeech.microsoft.com/api/texttospeech/v3.0/longaudiosynthesis/voices>

B. <https://uksouth.tts.speech.microsoft.com/cognitiveservices/voices/list>

C. <https://uksouth.voice.speech.microsoft.com/cognitiveservices/v1?deploymentId={deploymentId}>

D. <https://uksouth.api.cognitive.microsoft.com/speechtotext/v3.0/models/base>

Answer: B

Explanation:

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

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

NO.121 Hotspot Question

You build a chatbot by using Azure OpenAI Studio.

You need to ensure that the responses are more deterministic and less creative.

Which two parameters should you configure? To answer, select the appropriate parameters in the answer area.

NOTE: Each correct answer is worth one point.

Answer Area

The screenshot shows the Azure OpenAI Studio interface. On the left, there's a "Chat session" window with a "Start chatting" button and a text input field for user queries. On the right, there's a "Configuration" panel with tabs for "Deployment" and "Parameters". The "Parameters" tab is selected, showing several sliders and input fields:

- Max response: 800
- Temperature: 0.7
- Top P: 0.9
- Stop sequence: Stop sequences
- Frequency penalty: 0
- Presence penalty: 0

Below the configuration panel, there are "Learn more" and "Current token count" sections.

Answer:

Answer Area

The screenshot shows a conversational AI configuration interface. On the left, there's a "Chat session" panel with a "Start chatting" button and a text input field for user queries. On the right, there's a "Configuration" panel with tabs for "Deployment" and "Parameters". The "Parameters" tab is active, showing sliders for "Max response" (set to 800), "Temperature" (set to 0.7), and "Top P" (set to 0.9). It also includes sections for "Stop sequence", "Frequency penalty" (set to 0), and "Presence penalty" (set to 0). A "Learn more" link and a "Current token count" indicator (1/4000) are also present.

NO.122 Your app must interpret a command to book a flight to a specified city, such as look a flight to Paris.?How should you model the city element of the command?

- A. As an intent.
- B. As an utterance.
- C. As an entity

Answer: C

Explanation:

The city is an entity to which the intent (booking a flight) should be applied.

NO.123 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:

Waterfall dialog is used to manage linear and more complex conversation flows.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-dialog-manage-conversation-flow?view=azure-bot-service-4.0&tabs=csharp> Component dialog is used to create independent dialogs to handle specific scenarios, breaking a large dialog set into more manageable pieces.

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-compositcontrol?view=azure-bot-service-4.0&tabs=csharp>

NO.124 You use the Azure AI 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.

Reference:

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

NO.125 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 <product>?

The chatbot fails to respond to the following question: How much does <product> 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**NO.126** 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:

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

NO.127 You are building a social media messaging app.

You need to identify in real time the language used in messages.

Which service should you use?

- A. Azure AI Content Safety
- B. Azure AI Translator
- C. Azure AI Speech
- D. Azure AI Language

Answer: B

Explanation:

The "azure-ai-translation-text" SDK is a client library for using the Azure AI Translator service, which includes the Language Detection API. This API allows you to determine the language of a given text string. The SDK simplifies integration of this API into applications, providing tools and libraries for various programming platforms like C#/.NET, Java, JavaScript, and Python.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/translator/text-translation/sdk-overview>

NO.128 Hotspot Question

You have a collection of press releases stored as PDF files.

You need to extract text from the files and perform sentiment analysis.

Which service should you use for each task? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Extract text:

- Azure AI Search
- Azure AI Vision
- Azure AI Document Intelligence

Perform sentiment analysis:

- Azure Cognitive Search
- Azure AI Computer Vision
- Azure AI Document Intelligence
- Azure AI Language

Answer:**Answer Area**

Extract text:

- Azure AI Search
- Azure AI Vision
- Azure AI Document Intelligence

Perform sentiment analysis:

- Azure Cognitive Search
- Azure AI Computer Vision
- Azure AI Document Intelligence
- Azure AI Language

NO.129 You have an Azure subscription that contains an Azure AI Document Intelligence resource named Aldoc1.

You have an app named App1 that uses Aldoc1. App1 analyzes business cards by calling business card model v2.1.

You need to update App1 to ensure that the app can interpret QR codes. The solution must minimize administrative effort.

What should you do first?

- A.** Upgrade the business card model to v3.0.
- B.** Implement the read model.
- C.** Deploy a custom model.
- D.** Implement the contract model.

Answer: B

Explanation:

Add-on capabilities (includes QR codes extraction) are available within all models except for the Business card model.

<https://learn.microsoft.com/en-us/azure/ai-services/document-intelligence/concept/add-on-capabilities?view=doc-intel-3.1.0>

NO.130 Hotspot Question

You create a knowledge store for Azure AI 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": "unrelatedocrttext",
          "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

NO.131 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 AI 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:

Part 1: Create a search service captions12345678

Step 1: Sign in to the QnA portal.

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

Microsoft Azure

 Microsoft

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: captions12345678

Pricing tier: Free -

Create Cognitive Services

Basics Tags Review + create

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

Project details

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

Subscription *

Resource group *

[Create new](#)

Instance details

Region *

 West US 2

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

Name *

 MyCognitiveServicesResource

Pricing tier *

[View full pricing details](#)

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.)

The screenshot shows the 'Import data' step in the Microsoft Azure portal. The configuration is as follows:

- Data Source:** Azure Blob Storage
- Data source name ***: signs
- Data to extract**: Content and metadata
- Parsing mode**: Default
- Connection string ***:
 - DefaultEndpointsProtocol=https;AccountName= ... (with a green checkmark)
 - Choose an existing connection (highlighted with a red box)
 - Authenticate using managed identity
- Container name ***: signs
- Blob folder**: your/folder/here
- Description**: (optional)

Three large black arrows point from left to right across the configuration fields, indicating the flow or sequence of steps. A blue button at the bottom left reads "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>

NO.132 Drag and Drop Question

You plan to use containerized versions of the Azure AI 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. (Choose four.) NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Actions

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

- Distribute a docker run script.

Answer Area

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

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.

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

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

Reference:

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

NO.133 Drag and Drop Question

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

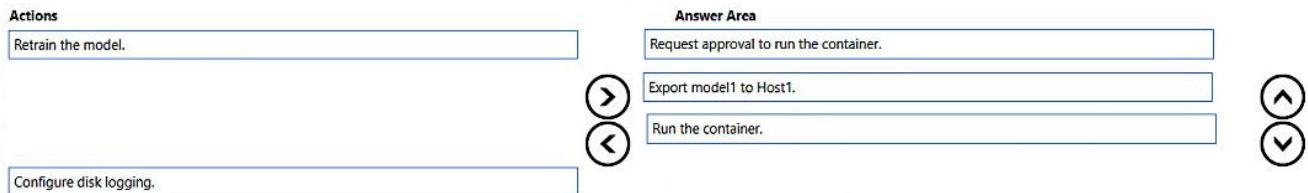
You have an Azure subscription that contains a custom speech-to-text model named model1.

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.

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

Answer Area**Answer:**



Explanation:

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

NO.134 How are client applications granted access to a cognitive services endpoint?

- A. The application must specify a valid subscription key for the Azure resource.
- B. The user must enter a username and password associated with the Azure subscription.
- C. Access to cognitive services is granted to anonymous users by default.

Answer: A

Explanation:

Access to a cognitive services resource is restricted through the use of subscription keys.

NO.135 You are developing a method for an application that uses the Azure AI 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 Azure AI 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. (Choose three.) 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>

NO.136 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named resource1. You are building an app that will analyze text by using resource1.

You need to identify text that contains hateful content.

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

```
...
client = ContentSafetyClient(endpoint, AzureKeyCredential(key))

request = AnalyzeTextOptions(text="Some animals are more equal than others")

# Analyze text

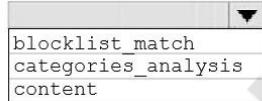
try:

    response = client.analyze_text(request)

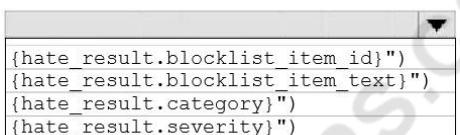
except HttpResponseError as e:

    print("Analyze text failed.")

    raise

hate_result = next(item for item in response.  if item.category == TextCategory.HATE)

if hate_result:

    print(f"Hate severity:  {hate_result.blocklist_item_id}")
    print(f"{hate_result.blocklist_item_text}")
    print(f"{hate_result.category}")
    print(f"{hate_result.severity}")

    ...

```

Answer:

Answer Area

```
...
client = ContentSafetyClient(endpoint, AzureKeyCredential(key))

request = AnalyzeTextOptions(text="Some animals are more equal than others")

# Analyze text

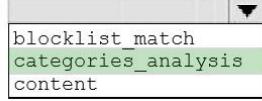
try:

    response = client.analyze_text(request)

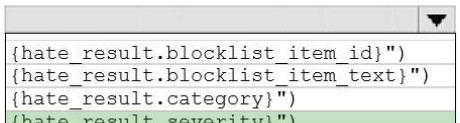
except HttpResponseError as e:

    print("Analyze text failed.")

    raise

hate_result = next(item for item in response.  if item.category == TextCategory.HATE)

if hate_result:

    print(f"Hate severity:  {hate_result.blocklist_item_id})
    print(f"{hate_result.blocklist_item_text}")
    print(f"{hate_result.category}")
    print(f"{hate_result.severity}")

    ...

```

Explanation:

"categories_analysis"

The categories_analysis property contains categorized insights into the type of content detected in the text, including hate speech.

blocklist_match would be used if the system were matching against a predefined blocklist, which is not the case here.

content is too broad and does not specifically analyze the detected category.

"{hate_result.severity}"

severity represents the intensity or degree of hateful content detected in the text.

This is the most relevant choice to quantify and report the level of hate detected.

Other options like blocklist_item_id or blocklist_item_text are only applicable when matching against blocklists.

NO.137 Hotspot Question

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.

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="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 checked="" type="radio"/>
OnMembersAddedAsync will be initialized when a user sends a message.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Box 1: Yes

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

Method invoked when members other than the bot join the conversation.

Box 2: No

When a new member will join the chatbot will only greet the new member and not all existing member in the chat.

Box 3: No

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.

Reference:

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

NO.138 Hotspot Question

You have 100,000 documents.

You are building an app that will identify city names in each document by using Azure AI Language.

You need to test the detection client

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

```
static void EntityRecognitionExample(
    DocumentAnalysisClient client)
    FormRecognizerClient client)
    QuestionAnsweringClient client)
    TextAnalyticsClient client)

{
    var response = client.RecognizeEntities("I had a great experience visiting Contoso in Redmond.");
    Console.WriteLine("Named Entities:");
    foreach (var entity in response.Value)
    {
        if (entity.
            .Contains("City")) {

        Console.WriteLine($"\\tText: {entity.Text}, \\tResult: {entity.ConfidenceScore}");
    }
}
}
```



Answer:

Answer Area

```

static void EntityRecognitionExample()
{
    var response = client.RecognizeEntities("I had a great experience visiting Contoso in Redmond.");
    Console.WriteLine("Named Entities:");
    foreach (var entity in response.Value)
    {
        if (entity.  .Contains("City")) {
            Console.WriteLine($"\\tText: {entity.Text},\\tResult: {entity.ConfidenceScore}");
        }
    }
}

```

NO.139 Which object should you use to specify that the speech input to be transcribed to text is in an audio file?

- A.** SpeechConfig
- B.** AudioConfig
- C.** SpeechRecognizer

Answer: B

Explanation:

Use an AudioConfig to specify the input source for speech.

NO.140 You have an Azure subscription that contains a multi-service Azure AI Translator resource named Translator1.

You are building an app that will translate text and documents by using Translator1.

You need to create the REST API request for the app.

Which headers should you include in the request?

- A.** the access control request, the content type, and the content length
- B.** the subscription key and the client trace ID
- C.** the resource ID and the content language
- D.** the subscription key, the subscription region, and the content type

Answer: D

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/translator/reference/v3-0-reference> When you use a multi-service secret key, you must include two authentication headers with your request. There are two headers that you need to call the Translator.

Ocp-Apim-Subscription-Key The value is the Azure secret key for your multi-service resource.

Ocp-Apim-Subscription-Region The value is the region of the multi-service resource. Region is required for the multi-service Text API subscription. The region you select is the only region that you can use for text translation when using the multi-service key. It must be the same region you selected when you signed up for your multi-service subscription through the Azure portal.

NO.141 You have the following C# method for creating Azure AI service 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 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(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:

There is free tier available for Computer Vision service.

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

Only ComputerVision allows you to generate descriptions. Custom vision is used to build custom models for image classification and other basic stuff, not complex tasks like description generation.

Reference:

<https://azure.microsoft.com/en-us/pricing/details/cognitive-services/computer-vision/>

NO.142 Hotspot Question

You are building an app that will analyze text by using the Azure AI Language service.

You need to configure the app to mask the telephone number and email details in a given document.

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

NOTE: Each correct selection is worth one point.

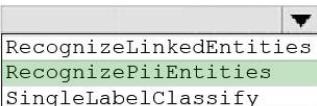
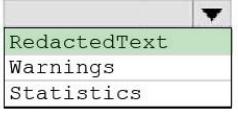
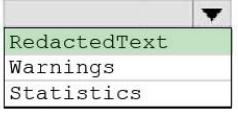
Answer Area

```
static void ScanText(TextAnalyticsClient client) {
    string document = "Call our office at 312-555-1234, or send an email to support@contoso.com.";
    var entities = client.[ ](document).Value;
RecognizeLinkedEntities
RecognizePiiEntities
SingleLabelClassify

    Console.WriteLine($"Masked Text: {entities.[ ]}");
}
```

RedactedText
Warnings
Statistics

Answer:**Answer Area**

```
static void ScanText(TextAnalyticsClient client) {
    string document = "Call our office at 312-555-1234, or send an email to support@contoso.com.";
    var entities = client. (document).Value;

    Console.WriteLine($"Masked Text: {entities.}");
}
```

Explanation:**Box 1: RecognizePiiEntities****TextAnalyticsClient.RecognizePiiEntities Method**

Runs a predictive model to identify a collection of entities containing Personally Identifiable Information found in the passed-in document, and categorize those entities into types such as US social security number, driver's license number, or credit card number.

Box 2: RedactedText

The characterMask policy allows the redactedText to be masked with a character, preserving the length and offset of the original text. This behavior is the existing expectation.

Reference:[https://learn.microsoft.com/en-](https://learn.microsoft.com/en-us/dotnet/api/azure.ai.textanalytics.textanalyticsclient.recognizepiientities)[us/dotnet/api/azure.ai.textanalytics.textanalyticsclient.recognizepiientities](https://learn.microsoft.com/en-us/dotnet/api/azure.ai.textanalytics.textanalyticsclient.recognizepiientities)<https://learn.microsoft.com/en-us/azure/ai-services/language-service/personally-identifiable-information/how-to/redact-text-pii>

NO.143 You are building an app named App1 that will use Azure AI Document Intelligence to extract the following data from scanned documents:

- Shipping address
- Billing address
- Customer ID
- Amount due
- Due date
- Total tax
- Subtotal

You need to identify which model to use for App1. The solution must minimize development effort.

Which model should you use?

- A.** custom extraction model
- B.** contract
- C.** invoice
- D.** general document

Answer: C**Explanation:**

<https://learn.microsoft.com/en-us/azure/ai-services/document-intelligence/concept-invoice?view=doc-intel-4.0.0#field-extraction>

NO.144 Hotspot Question

You are developing a text processing solution.

You develop the following method.

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

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

You call the method by using the following code.

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

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The call will output key phrases from the input string to the console.	<input type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input type="radio"/>

Answer:**Answer Area**

Statements	Yes	No
The call will output key phrases from the input string to the console.	<input checked="" type="radio"/>	<input type="radio"/>
The output will contain the following words: the, cat, sat, on, and mat.	<input type="radio"/>	<input checked="" type="radio"/>
The output will contain the confidence level for key phrases.	<input type="radio"/>	<input checked="" type="radio"/>

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-keyword-extraction

NO.145 You have a custom Azure OpenAI model.

You have the files shown in the following table.

Name	Size
File1.tsv	80 MB
File2.xml	25 MB
File3.pdf	50 MB
File4.xlsx	200 MB

You need to prepare training data for the model by using the OpenAI CLI data preparation tool.

Which files can you upload to the tool?

- A. File1.tsv only
- B. File2.xml only
- C. File3.pdf only
- D. File4.xlsx only
- E. File1.tsv and File4.xlsx only
- F. File1.tsv, File2.xml and File4.xlsx only
- G. File1.tsv, File2.xml, File3.pdf and File4.xlsx

Answer: E

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/openai/how-to/fine-tuning?tabs=azure-openai%2Ccompletionfinetuning%2Cpython-new&pivots=programming-language-studio#openai- cli -data-preparation-tool>

NO.146 You want to keep track of how often the subscription keys for your cognitive services resource are retrieved. How can you achieve that?

- A. Regenerate the keys for your cognitive services resource.
- B. Create an alert for your cognitive services resource.
- C. Store the keys in Azure Key Vault.

Answer: B

Explanation:

You can be notified about events such as key access for your cognitive services resource by configuring an alert.

NO.147 You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You build a chatbot that uses AI1 to provide generative answers to specific questions.

You need to ensure that questions intended to circumvent built-in safety features are blocked.

Which Azure AI Content Safety feature should you implement?

- A. Monitor online activity
- B. Jailbreak risk detection
- C. Moderate text content
- D. Protected material text detection

Answer: B

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/concepts/jailbreak-detection#prompt-shields-for-user-prompts>

NO.148 Hotspot Question

You are building a message handling system that will use the Azure AI Translator service.

You need to ensure that incoming messages are translated to English.

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

```
from azure.ai.translation.text import *
from azure.ai.translation.text.models import InputTextItem
credential = TranslatorCredential(translatorKey, translatorRegion)
client = 
(credential)
TextTranslationClient
Translate
TranslationRecognizer
Transliterate
translationResponse = 
client.translate(
client.Transliterate(
translator.recognize_once_async(
content=input_text,to=[targetLanguage])
translation = translationResponse[0]
print(translation.translations[0].text)
...

```

Answer:

Answer Area

```
from azure.ai.translation.text import *
from azure.ai.translation.text.models import InputTextItem
credential = TranslatorCredential(translatorKey, translatorRegion)
client = TextTranslationClient(credential)
translationResponse = client.translate(
    content=input_text,to=[targetLanguage])
translation = translationResponse[0]
print(translation.translations[0].text)
...
...
```

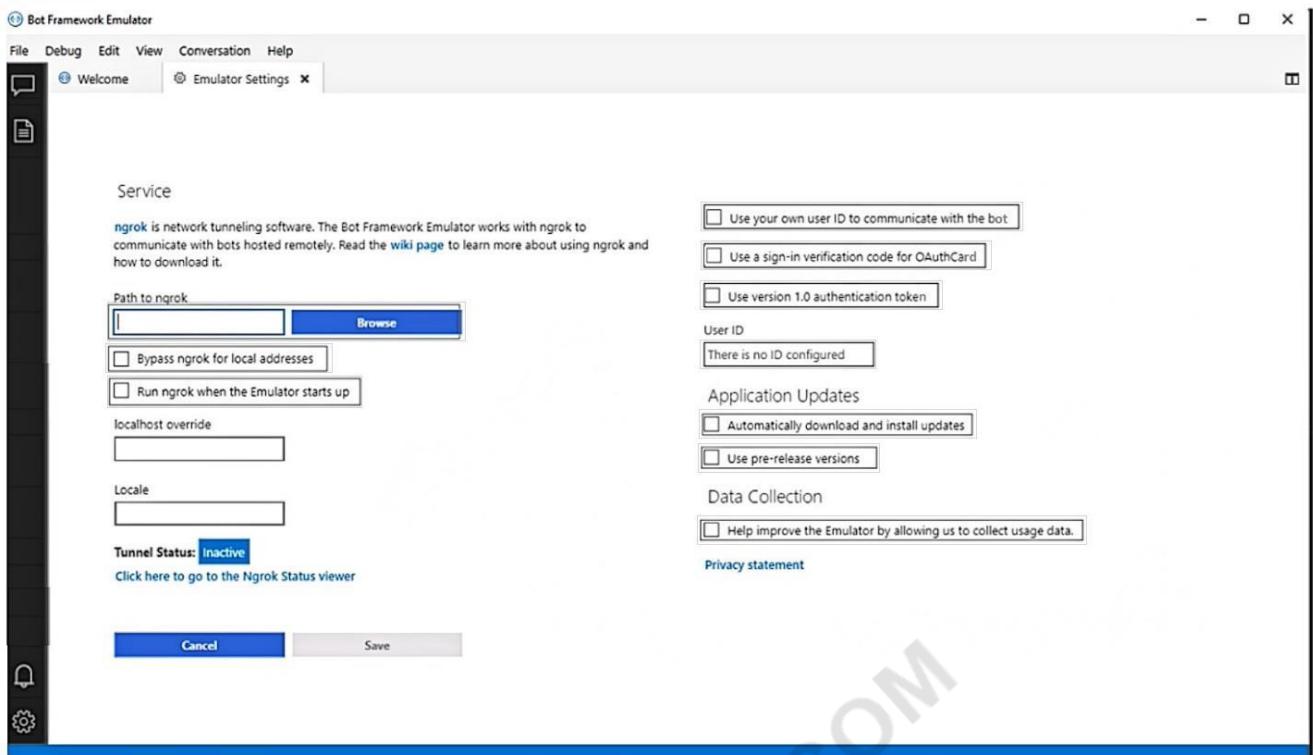
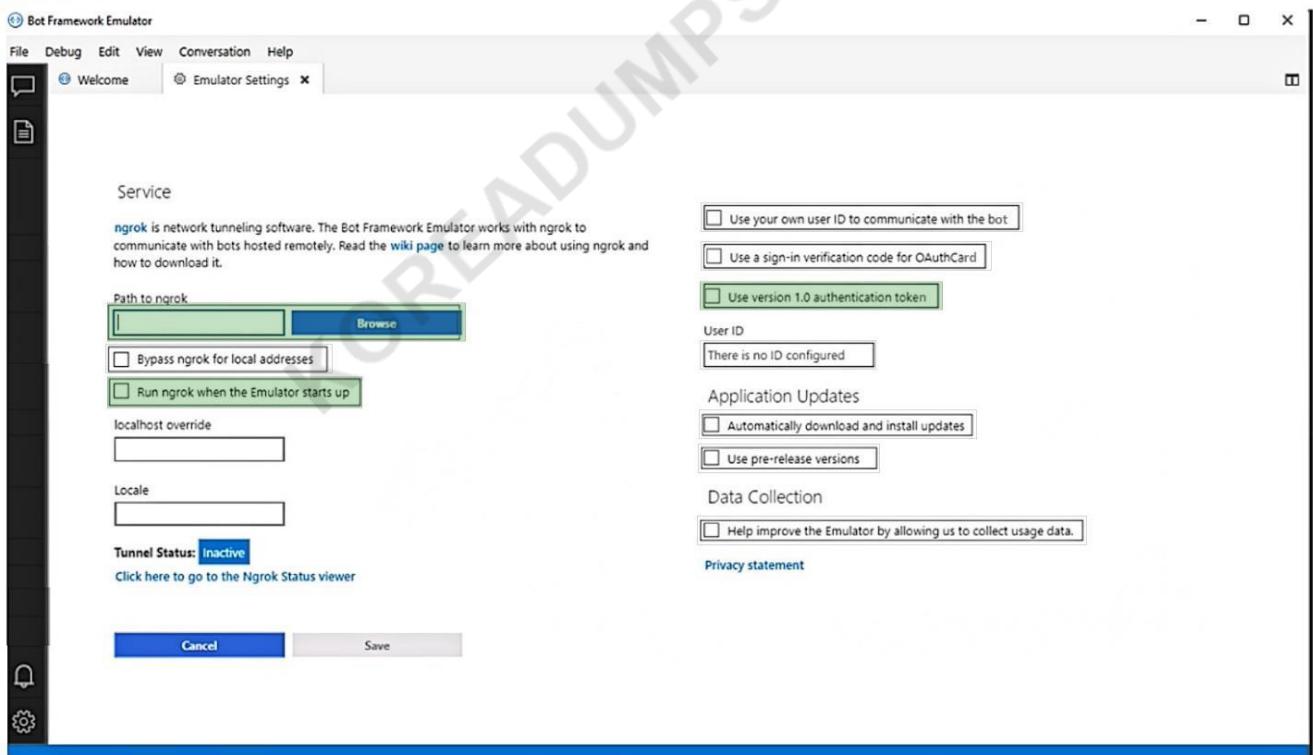
NO.149 Hotspot Question

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:****Answer Area****Explanation:**

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

NO.150 Your company uses an Azure AI 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>

NO.151 Case Study 1 - Wide World Importers

Overview

Existing Environment

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"
}

```

You are developing the smart e-commerce project.

You need to implement autocompletion as part of the Azure AI Search solution.

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

(Choose three.)

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 AI 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.

G. Use the default standard Lucene analyzer ("analyzer": null) or a language analyzer (for example, "analyzer": "en.Microsoft") on the field.

Reference:

<https://docs.microsoft.com/en-us/azure/search/index-add-suggesters>

NO.152 You have a computer that contains the files shown in the following table.

Name	Format	Length (mins)	Size (MB)
File1	MP4	34	1,500
File2	AVI	500	1,700
File3	MP3	300	980
File4	MP4	350	2,800

Which files can you upload and analyze by using Azure AI Video Indexer?

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

Answer: D

Explanation:

Note: Azure AI Video Indexer supports a wide range of video and audio file formats, including AVI, FLV, ISMV, Matroska, MP4, MXF, MPEG2-TS, QuickTime, WAVE/WAV, and Windows Media Video/ASF. File size limits depend on whether you're uploading from your device or from a URL; the device upload limit is 2 GB, while the URL upload limit is 30 GB.

MP3 (MPEG-1 Audio Layer 3) audio file is also supported.

File duration limit

The file duration limit is 6 hours for all presets with the exclusion of the Basic Audio preset which has a file duration limit of 12 hours.

Reference:

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/avi-support-matrix>

NO.153 Drag and Drop Question

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.

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

Answer Area

For the knowledge base, select Show active learning suggestions.	
Approve and reject suggestions.	
Save and train the knowledge base.	
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>

NO.154 Case Study 1 - Wide World Importers**Overview****Existing Environment**

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"  
}
```

Hotspot Question

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.

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]}"
        }
    ]
}

```

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",
            "$when": "${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:

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]

NO.155 Hotspot Question

You are building a solution that students will use to find references for essays.

You use the following code to start building the solution.

```
using Azure;
using System;
using Azure.AI.TextAnalytics;

private static readonly AzureKeyCredential credentials = new AzureKeyCredential("<key>");
private static readonly Uri endpoint = new Uri("<endpoint>");

static void EntityLinker(TextAnalyticsClient client)
{
    var response = client.RecognizeLinkedEntities(
        "Our tour guide took us up the Space Needle during our trip to Seattle last week.");
}
```

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The code will detect the language of documents.	<input type="radio"/>	<input type="radio"/>
The url attribute returned for each linked entity will be a Bing search link.	<input type="radio"/>	<input type="radio"/>
The matches attribute returned for each linked entity will provide the location in a document where the entity is referenced.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

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

Explanation:

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

NO.156 You build a custom Azure AI Document Intelligence 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	600 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

Azure AI Document Intelligence works on input documents that meet these requirements:

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

File size must be less than 50 MB.

Reference:

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

NO.157 You are building an internet-based training solution. The solution requires that a user's camera and microphone remain enabled.

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

What should you include in the solution?

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

Answer: A

NO.158 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: A

Explanation:

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

NO.159 Hotspot Question

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 AI 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

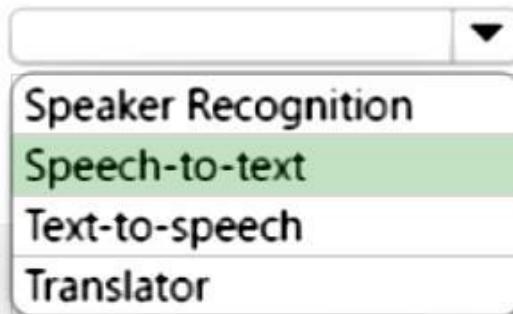
To replay messages:

Speech-to-text only
Speech-to-text and Language
Speaker Recognition and Language
Text-to-speech and Language
Text-to-speech and Translator

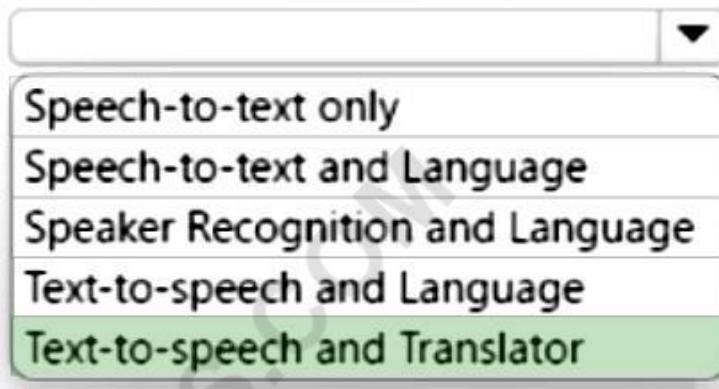
Answer:

Answer Area

To capture messages:



To replay messages:



NO.160 You have an Azure subscription that contains an Azure OpenAI resource.

You plan to build an agent by using the Azure AI Agent Service. The agent will perform the following actions:

- Interpret written and spoken questions from users.
- Generate answers to the questions.
- Output the answers as speech.

You need to create the project for the agent.

What should you use?

- A. the Azure portal
- B. Language Studio
- C. Azure AI Foundry
- D. Speech Studio

Answer: C

Explanation:

Azure AI Foundry is a platform for designing, customizing, managing, and supporting AI applications and agents. It acts as an AI app factory, providing a unified environment with tools, models, and deployment pipelines for various AI tasks. It enables teams to build and operate AI solutions, including those powered by generative AI, while ensuring security, governance, and cost-efficiency.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-foundry/what-is-azure-ai-foundry>

NO.161 Drag and Drop Question

You have a chatbot that uses the Azure AI Language custom question answering service. The model

used by the service was trained by using an internal support FAQ document. You discover that the chatbot fails to provide correct answers to common questions. You need to increase the accuracy of the responses provided by the chatbot. The solution must minimize development effort. Which three actions should you perform in sequence from Language Studio? 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
Update the question and answer pairs.	1. [Empty Box]
Open the Review suggestions pane.	2. [Empty Box]
Open the Edit knowledge base pane.	3. [Empty Box]
Enable active learning.	
Retrain and republish the model.	
Modify the FAQ document, and then reload it.	
Review and accept the alternative phrases.	

(
)
(
)

Answer:

Actions	Answer Area
Update the question and answer pairs.	1. Enable active learning.
Open the Edit knowledge base pane.	2. Open the Review suggestions pane.
Retrain and republish the model.	3. Review and accept the alternative phrases.
Modify the FAQ document, and then reload it.	

(
)
(
)

NO.162 Drag and Drop Question

You have a chatbot that uses the Azure AI Language custom question answering service. The model used by the service was trained by using an internal support FAQ document that contains warranty details.

Users report that the chatbot fails to provide a correct answer when asked the following question: "How long is the warranty period?"

You need to ensure that the chatbot answers the question correctly. The solution must minimize development effort.

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

Actions

- Modify the FAQ document, and then reload it.
- Enable active learning.
- Add a new question and answer pair.
- Open the **Edit knowledge base** pane.
- Retrain and republish the model.
- Add the following question: "How long is the warranty period?"
- Locate the question and answer pair for the warranty period and select **Add alternate question**.

Answer Area

- 1
- 2
- 3
- 4

Answer:**Actions**

- Modify the FAQ document, and then reload it.
- Enable active learning.
- Add a new question and answer pair.

Answer Area

- 1 Open the **Edit knowledge base** pane.
- 2 Locate the question and answer pair for the warranty period and select **Add alternate question**.
- 3 Add the following question: "How long is the warranty period?"
- 4 Retrain and republish the model.

NO.163 You have a file share that contains 5,000 images of scanned invoices.

You need to analyze the images. The solution must extract the following data:

- Invoice items
- Sales amounts
- Customer details

What should you use?

- A. Custom Vision
- B. Azure AI Computer Vision
- C. Azure AI Immersive Reader
- D. Azure AI Document Intelligence

Answer: D

NO.164 Hotspot Question

You are building an app that will automatically translate speech from English to French, German, and Spanish by using Azure AI service.

You need to define the output languages and configure the Azure AI Speech service.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
static async Task TranslateSpeechAsync()
{
    var config = SpeechTranslationConfig.FromSubscription(SPEECH_SUBSCRIPTION_KEY, SPEECH_SERVICE_REGION);
    var languages = new List<string>
    {
        ["en-GB"]
        ["en", "fr", "de", "es"]
        {"fr", "de", "es"}
        ["French", "German", "Spanish"]
    };
    languages.ForEach(config.AddTargetLanguage);

    using var recognizer = new
    {
        IntentRecognizer
        SpeakerRecognizer
        SpeechSynthesizer
        TranslationRecognizer
    };
}
```

Answer:**Answer Area**

```
static async Task TranslateSpeechAsync()
{
    var config = SpeechTranslationConfig.FromSubscription(SPEECH_SUBSCRIPTION_KEY, SPEECH_SERVICE_REGION);
    var languages = new List<string>
    {
        ["en-GB"]
        ["en", "fr", "de", "es"]
        {"fr", "de", "es"} (highlighted)
        ["French", "German", "Spanish"]
    };
    languages.ForEach(config.AddTargetLanguage);

    using var recognizer = new
    {
        IntentRecognizer
        SpeakerRecognizer
        SpeechSynthesizer
        TranslationRecognizer (highlighted)
    };
}
```

NO.165 You have an Azure AI Search solution and a collection of blog posts that include a category field.

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

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

Which index attributes should you configure for the category field?

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

Answer: B

Explanation:

Retrievable: Include the category field in the search results.

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

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

<https://docs.microsoft.com/en-us/azure/search/search-faceted-navigation>

NO.166 Hotspot Question

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"
	bot	config
	functionapp	config-local-git
	vm	config-zip
	webapp	

Answer:

Answer Area

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
	bot	config
	functionapp	config-local-git
	vm	config-zip
	webapp	

NO.167 Case Study 2 - Contoso, Ltd.

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

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:

- ICountryJ-[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.

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

You are developing the knowledgebase.

You use Azure Video Analyzer for Media (previously Video indexer) to obtain transcripts of webinars.

You need to ensure that the solution meets the knowledgebase requirements.

What should you do?

- A.** Create a custom language model
- B.** Configure audio indexing for videos only
- C.** Enable multi-language detection for videos
- D.** Build a custom Person model for webinar presenters

Answer: A

Explanation:

--- Can transcribe jargon with high accuracy

Video Indexer (VI), the AI service for Azure Media Services enables the customization of language models by allowing customers to upload examples of sentences or words belonging to the vocabulary of their specific use case. Since speech recognition can sometimes be tricky, VI enables you to train and adapt the models for your specific domain. Harnessing this capability allows organizations to

improve the accuracy of the Video Indexer generated transcriptions in their accounts.

Reference:

<https://azure.microsoft.com/en-us/blog/new-ways-to-train-custom-language-models-effortlessly/>

NO.168 What are two uses of data visualization? Each correct answer presents a complete solution.

NOTE:

Each correct selection is worth one point.

- A.** Communicate the significance of data.
- B.** Represent trends and patterns over time.
- C.** Implement machine learning to predict future values.
- D.** Enforce business logic across reports.

Answer: AB

NO.169 Hotspot Question

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:	<input type="checkbox"/> Classification <input type="checkbox"/> pii <input type="checkbox"/> Terms
Category:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

Answer:

Answer Area

Section:

Classification
pii
Terms

Category:

1
2
3

Explanation:

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

NO.170 Hotspot Question

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

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

You create the following state accessors to store both objects in state.

```
self.user_profile_accessor = self.user_state.create_property("UserProfile")
self.conversation_data_accessor = self.conversation_state.create_property("ConversationData")
```

The state storage mechanism is set to Memory Storage.

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The code will create and maintain the UserProfile object in the underlying storage layer.	<input type="radio"/>	<input type="radio"/>
The code will create and maintain the ConversationData object in the underlying storage layer.	<input type="radio"/>	<input type="radio"/>
The UserProfile and ConversationData objects will persist when the Bot Framework runtime terminates.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
The code will create and maintain the <code>UserProfile</code> object in the underlying storage layer.	<input checked="" 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 checked="" 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="radio"/>

Explanation:

<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>

NO.171 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 AI 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>

NO.172 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

NO.173 Hotspot Question

You are building a message handling system that will use the Azure AI Translator service.

You need to ensure that incoming messages are translated to English.

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

```
using Azure;
using Azure.AI.Translation.Text;
AzureKeyCredential credential = new(translatorKey);
client = new(credential, translatorRegion);

var translationResponse = await
    client.Translate(
        client.TranslateAsync(
            client.Transliterate(
                translator.RecognizeOnceAsync(
                    targetLanguage, inputText).ConfigureAwait(false));
        var translation = translationResponse.Value[0];
        Console.WriteLine(translation.Translations[0].Text);
    ...
}
```

Answer:

Answer Area

```

using Azure;
using Azure.AI.Translation.Text;
AzureKeyCredential credential = new(translatorKey);
client = new(credential, translatorRegion);

TextTranslationClient
TranslateAsync
TranslationRecognizer
Transliterate

var translationResponse = await
client.Translate(
client.TranslateAsync()
client.Transliterate(
translator.RecognizeOnceAsync()

targetLanguage, inputText).ConfigureAwait(false);

var translation = translationResponse.Value[0];
Console.WriteLine(translation.Translations[0].Text);

...

```

Explanation:

Box 1: TextTranslationClient

Example C#:

```

using Azure;
using Azure.AI.Translation.Text;
string key = "<your-key>";
AzureKeyCredential credential = new(key);
TextTranslationClient client = new(credential);

```

Box 2: client.TranslateAsync()

Example continued:

```

Response<IReadOnlyList<TranslatedTextItem>> response = await
client.TranslateAsync(targetLanguage, inputText).ConfigureAwait(false); Reference:
https://learn.microsoft.com/en-us/azure/ai-services/translator/quickstart-text-sdk

```

NO.174 You have a chatbot that uses Custom question answering based on the frequently asked questions (FAQ) published on a corporate website.

Users report that for questions answered in the FAQ, the chatbot returns the following response:

"No good match found in KB."

You need to ensure that the chatbot answers the questions correctly. The solution must minimize administrative effort.

What should you do in Azure AI Language Studio?

- A. Add chitchat.
- B. Change the default answer.
- C. Add a new source.
- D. Select Refresh URL.

Answer: D

Explanation:

The response "No good match found in KB" indicates that the knowledge base (KB) used by the chatbot is not finding relevant answers, possibly due to outdated or missing information. By selecting Refresh URL in Azure AI Language Studio, you can update the knowledge base with the latest content from the FAQ page on the corporate website. This action ensures that the chatbot has access to current and accurate information, minimizing administrative effort as it automates the update process.

NO.175 Hotspot Question

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-42c9-9093-4dd60fd4cfc7",
  "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.

detects
finds similar
recognizes
verifies

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

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

Answer:**Answer Area**

The API [answer choice] faces.

detects
finds similar
recognizes
verifies

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

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

NO.176 You are building a solution in Azure that will use Azure AI Language service to process sensitive customer data.

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

What should you include in the solution?

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

Answer: D

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/cognitive-services-virtual-networks?tabs=portal>

NO.177 Hotspot Question

You plan to provision Azure AI Services resources by using the following method.

You need to create a Standard tier resource that will convert scanned receipts into text.

```
static void provision_resource(CognitiveServicesManagementClient client, string name, string kind, string tier, string location)
{
    CognitiveServicesAccount parameters =
        new CognitiveServicesAccount(null, null, kind, location, name,
            new CognitiveServicesAccountProperties(), new Sku(tier));
    result = client.Accounts.Create(resource_group_name, tier, parameters);
}
```

How should you call the method? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
provision_resource("res1",
```

ComputerVision
CustomVision.Prediction
CustomVision.Training
FormRecognizer

"eastus", "S1")
"useast", "S1")
"S0", "eastus")
"S0", "useast")

Answer:**Answer Area**

```
provision_resource("res1",
```

ComputerVision
CustomVision.Prediction
CustomVision.Training
FormRecognizer

"eastus", "S1")
"useast", "S1")
"S0", "eastus")
"S0", "useast")

NO.178 Hotspot Question

You have an Azure subscription that contains an Azure AI Language service resource named Resource1.

You query Resource1 by running a cURL command and receive the following response.

```
{
  "documents": [
    {
      "redactedText": "If I, *****, accidentally or with intent breach the conditions set forth in this contract, I understand fully that I shall receive a written termination.",
      "id": "id_999",
      "entities": [
        {
          "text": "Mateo Gomez",
          "category": "Person",
          "offset": 6,
          "length": 11,
          "confidenceScore": 1
        },
      ],
      "warnings": []
    }
  ],
  "errors": [],
  "modelVersion": "2023-09-01"
}
```

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
Resource1 was queried by using Personally Identifiable Information (PII) detection.	<input type="radio"/>	<input checked="" type="radio"/>
The response indicates that Resource1 has low confidence in the accuracy of the identified entity.	<input checked="" type="radio"/>	<input type="radio"/>
The request URL includes the following string: https://resource1.cognitiveservices.azure.com/contentsafety .	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Statements	Yes	No
Resource1 was queried by using Personally Identifiable Information (PII) detection.	<input checked="" type="radio"/>	<input type="radio"/>
The response indicates that Resource1 has low confidence in the accuracy of the identified entity.	<input type="radio"/>	<input checked="" type="radio"/>
The request URL includes the following string: https://resource1.cognitiveservices.azure.com/contentsafety .	<input type="radio"/>	<input checked="" type="radio"/>

NO.179 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: B

NO.180 Hotspot Question

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**

NO.181 You have a SQL query that combines customer data and order data. The query includes calculated columns. You need to create a database object that would allow other users to rerun the same SQL query. What should you create?

- A. an Index
- B. a view
- C. a scalar function
- D. a table

Answer: B

NO.182 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:

An interruption occurs when a trigger is fired. Context of adaptive dialogs.

NO.183 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: A

NO.184 You have the following Python function.

```
def my_function(textAnalyticsClient, text):
    response = textAnalyticsClient.extract_key_phrases(documents = [text])[0]
    print("Key Phrases:")
    for phrase in response.key_phrases:
        print(phrase)
```

You call the function by using the following code.

```
my_function(text_analytics_client, "the quick brown fox jumps over the
lazy dog")
```

Following 'Key phrases', what output will you receive?

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

Answer: C**NO.185** Case Study 2 - Contoso, Ltd.

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

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:

- ICountryJ-[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.

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

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/v3.2/read/analyzeResults**
- B. /formrecognizer/v2.0/prebuilt/receipt/analyze**
- C. /vision/v3.2/read/analyze**
- D. /vision/v3.2/describe**
- E. /formrecognizer/v2.0/custom/models{modelId}/ analyze**

Answer: BC

Explanation:

Query the status and retrieve the result of an Analyze Receipt operation.

Request URL:

`https://{{endpoint}}/formrecognizer/v2.0-preview/prebuilt/receipt/analyzeResults/{{resultId}}` POST
`{{Endpoint}}/vision/v3.2/read/analyze` Use this interface to get the result of a Read operation, employing the state-of-the-art Optical Character Recognition (OCR) algorithms optimized for text-heavy documents.

Scenario: Contoso plans to develop a document processing workflow to extract information automatically from PDFs and images of financial documents. The document processing solution must be able to process standardized financial documents that have the following characteristics:

- 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.

Reference:

<https://westus2.dev.cognitive.microsoft.com/docs/services/form-recognizer-api-v2-preview/operations/GetAnalyzeReceiptResult>

<https://docs.microsoft.com/en-us/rest/api/computervision/3.1/read/read>

NO.186 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource.

You are building a social media app that will enable users to share images.

You need to configure the app to moderate inappropriate content uploaded by the users.

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

```
public static void Analyze(AnalyzeImageOptions request)
{
    var endpoint = Environment.GetEnvironmentVariable("ENDPOINT");
    var key = Environment.GetEnvironmentVariable("KEY");
    var client = new  (new Uri(endpoint), new AzureKeyCredential(key));
    
    
    
    
    return 
    
    
    
}
```

Answer:

Answer Area

```

public static void Analyze(AnalyzeImageOptions request)
{
    var endpoint = Environment.GetEnvironmentVariable("ENDPOINT");
    var key = Environment.GetEnvironmentVariable("KEY");
    var client = new ContentSafetyClient(new Uri(endpoint), new AzureKeyCredential(key));
    return client.AnalyzeImage(request);
}

```

ContentSafetyClient

AnalyzeImage

NO.187 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

In an infrastructure as a service (IaaS) instance of Microsoft SQL Server on Azure, you manage the **elastic pool** that hosts SQL Server.

elastic pool
MySQL server
PostgreSQL server
virtual machine

Answer:**Answer Area**

In an infrastructure as a service (IaaS) instance of Microsoft SQL Server on Azure, you manage the **elastic pool** that hosts SQL Server.

elastic pool
MySQL server
PostgreSQL server
virtual machine

NO.188 SIMULATION

You need to configure and publish bot12345678 to answer questions by using the frequently asked questions (FAQ) located at <https://docs.microsoft.com/en-us/azure/bot-service/bot-service-resources-bot-framework-faq>. The solution must use bot%@lab.LabInstance.Id-qna- qna%.

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

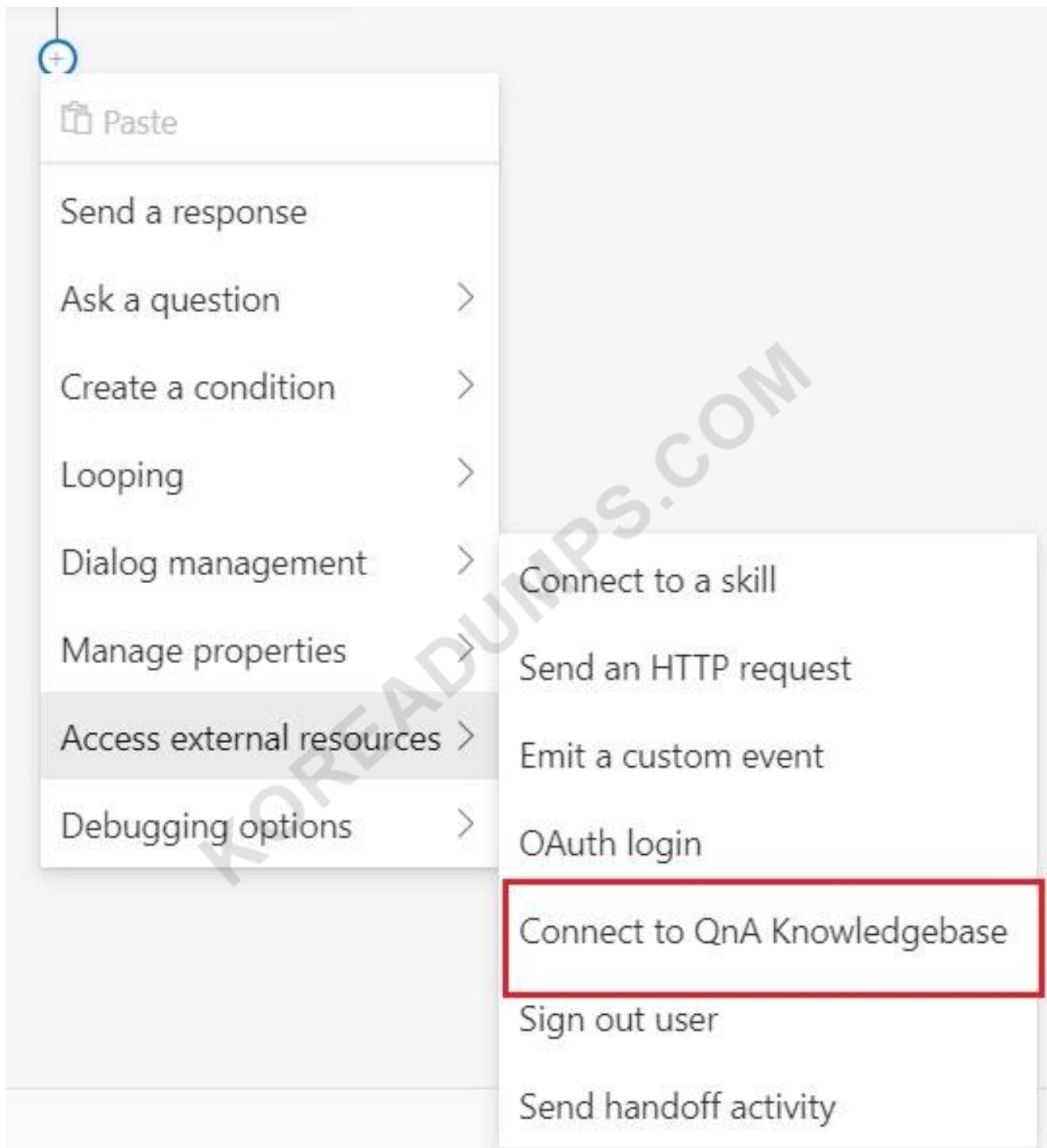
Answer:

Step 1: Open Microsoft Bot Framework Composer

Step 2: Select the bot bot12345678

Step 3: Open the Configure page in Composer. Then select the Development resources, and scroll down to Azure QnA Maker.

Step 4: To access the Connect to QnA Knowledgebase action, you need to select + under the node you want to add the QnA knowledge base and then select Connect to QnAKnowledgeBase from the Access external resources action menu.



Step 5: Review the QnA Maker settings panel after selecting the QnA Maker dialog.

Use:

Instance: bot%@lab.LabInstance.Id-qna-qna%

Reference:

<https://docs.microsoft.com/en-us/composer/how-to-create-qna-kb>

<https://docs.microsoft.com/en-us/composer/how-to-add-qna-to-bot>

NO.189 Hotspot Question

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

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

you pull the latest version of the Language service 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.

Answer Area

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

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

`Eula=accept \`

`Billing=`

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

`ApiKey=xxxxxxxxxxxxxxxxxxxxxx`

Answer:

Answer Area

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

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

`Eula=accept \`

`Billing=`

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

`ApiKey=xxxxxxxxxxxxxxxxxxxxxx`

Explanation:

Box 1: `mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment` To run the Sentiment Analysis v3 container, execute the following docker run command.

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

`mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment \ Eula=accept \`

`Billing={ENDPOINT_URI} \ ApiKey={API_KEY}` is the endpoint for accessing the Text Analytics API.

`https://<your-custom-subdomain>.cognitiveservices.azure.com` Box 2:

`https://contoso.cognitiveservices.azure.com`

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

Reference:

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

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

NO.190 You have an Azure AI Search instance that indexes purchase orders by using Azure AI Document Intelligence.

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:

Use Power BI for data exploration. This tool works best when the data is in Azure Table Storage.

Within Power BI, you can manipulate data into new tables that are easier to query and analyze.

Table projections are recommended for scenarios that call for data exploration, such as analysis with Power BI or workloads that consume data frames.

NO.191 Hotspot Question

You have an Azure subscription that contains an Azure AI Document Intelligence resource named DI1.

You build an app named App1 that analyzes PDF files for handwritten content by using DI1.

You need to ensure that App1 will recognize the handwritten content.

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

Answer Area

```
Uri fileUri = new Uri("<fileUri>");

AnalyzeDocumentOperation operation = await client.AnalyzeDocumentFromUriAsync(WaitUntil.Completed,
    AnalyzeResult result = operation.Value;
    foreach (DocumentStyle style in result.Styles)
    {
        bool isHandwritten = style.IsHandwritten.HasValue && style.IsHandwritten == true;
        if (isHandwritten && style.Confidence >  )
        {
            Console.WriteLine($"Handwritten content found:");
            foreach (DocumentSpan span in style.Spans)

```

Answer:

Answer Area

```

Uri fileUri = new Uri("<fileUri>");

AnalyzeDocumentOperation operation = await client.AnalyzeDocumentFromUriAsync(WaitUntil.Completed,
    AnalyzeResult result = operation.Value;
    foreach (DocumentStyle style in result.Styles)
    {
        bool isHandwritten = style.IsHandwritten.HasValue && style.IsHandwritten == true;
        if (isHandwritten && style.Confidence > 

|      |
|------|
| 0.1  |
| 0.75 |
| 1.0  |

)
    }

    Console.WriteLine($"Handwritten content found:");
    foreach (DocumentSpan span in style.Spans)

```

"prebuilt-document",
"prebuilt-contract",
"prebuilt-read",

NO.192 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named Resource1 and a storage account named storage1.

You create a blob container named container1 and upload a sample set of image files to container1. You need to validate whether Resource1 can identify images that contain potential violence. How should you complete the cURL command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```

curl --location --request POST
'https://resource1.cognitiveservices.azure.com' ?api-version=2024-09-01' \
    /contentmoderator
    /contentsafety
    /vision
/detect
/image:analyze
/ProcessImage

--header 'Ocp-Apim-Subscription-Key: 33e5df16c33f43a5942926d8a8ac32b6' \
--header 'Content-Type: application/json' \
--data-raw '{
    "image": {
        "blobUrl": "https://storage1.blob.core.windows.net/container1
    }
}'

```

/detect
/image:analyze
/ProcessImage

Answer:

Answer Area

```
curl --location --request POST
'https://resource1.cognitiveservices.azure.com/
    /contentmoderator
    /contentsafety
    /vision
    /detect
    /image:analyze
    /ProcessImage
?api-version=2024-09-01' \
--header 'Ocp-Apim-Subscription-Key: 33e5df16c33f43a5942926d8a8ac32b6' \
--header 'Content-Type: application/json' \
--data-raw '{
  "image": {
    "blobUrl": "https://storage1.blob.core.windows.net/container1
  }
}'
```

Explanation:

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/quickstart-image>

NO.193 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:

You can use the Speech service to voice-enable a chat bot.

The Direct Line Speech channel uses the text-to-speech service, which has neural and standard voices.

You'll need to make a small configuration change so that your bot can communicate with the Direct Line Speech channel using web sockets.

Reference:

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

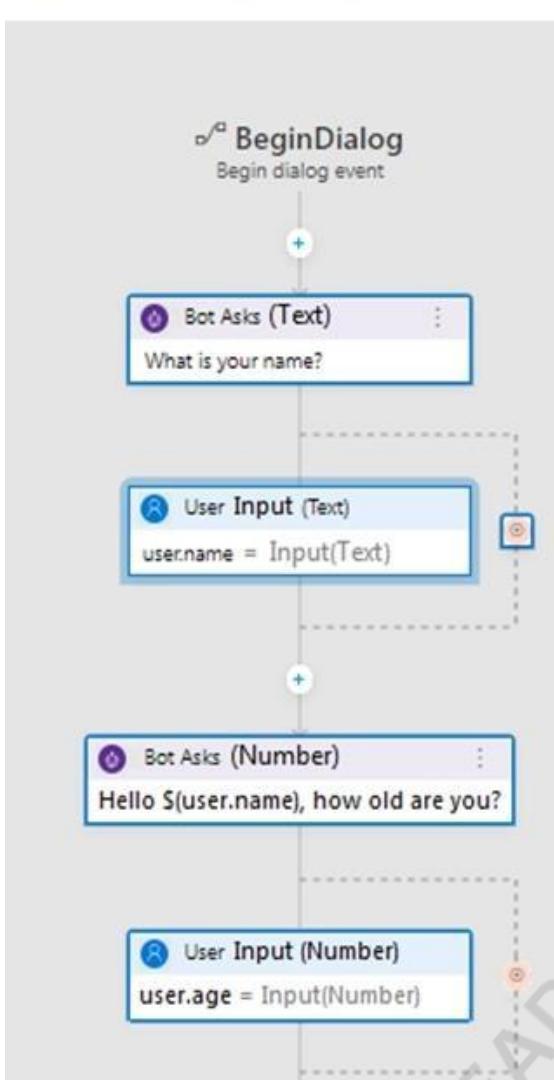
NO.194 Hotspot Question

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

username

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.

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/coalescefunction>

NO.195 Drag and Drop Question

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	Answer Area
Open the Bot Framework Composer.	1  
Connect to the bot endpoint.	2  
Register the bot with the Azure Bot Service.	3  
Build and run the bot.	
Open the Bot Framework Emulator.	

Answer:

Actions	Answer Area
Open the Bot Framework Composer.	1  
Register the bot with the Azure Bot Service.	2  
	3  
	Build and run the bot.  
	Open the Bot Framework Emulator.  
	Connect to the bot endpoint.  

NO.196 Drag and Drop Question

You are developing a webpage that will use the 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.

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

Cognitive Insights Widget	Player Widget
<a href="https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets=en-US&controls=false">https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets= <input type="text" value="Value"/> controls= <input type="text" value="Value"/>	<a href="https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/?showcaptions=false">https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/?showcaptions= <input type="text" value="Value"/> captions= <input type="text" value="Value"/>

Answer:

Values	Answer Area
false	
people,search	

Cognitive Insights Widget	Player Widget
<a href="https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets=people,keywords&controls=search">https://www.videoindexer.ai/embed/insights/<accountId>/<videoId>/?widgets= <input type="text" value="people,keywords"/> controls= <input type="text" value="search"/>	<a href="https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/?showcaptions=true">https://www.videoindexer.ai/embed/player/<accountId>/<videoId>/?showcaptions= <input type="text" value="true"/> captions= <input type="text" value="en-US"/>

Explanation:

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

NO.197 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:

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

NO.198 What is a characteristic of a non-relational database?

- A.** full support for Transact-SQL
- B.** a fixed schema
- C.** self describing entities

Answer: C

NO.199 You have a training dataset that contains 10,000 PDF documents. The documents contain scanned books, comics, and magazines.

You are building a solution that will use Azure AI and a custom model.

You need to train the model by using Language Studio. The solution must meet the following requirements:

- Tag each item as a book, comic, or magazine.
- Minimize development effort.

What should you use?

- A.** a custom extraction model
- B.** a multi label classification project
- C.** a custom named entity recognition (NER) project
- D.** a multi label image classification model

Answer: D

Explanation:

AutoML Image Classification Multi-label

Multi-label image classification is a computer vision task where the goal is to predict a set of labels associated with each individual image. You may consider using multi-label classification where you need to determine several properties of a given image.

Reference:

<https://learn.microsoft.com/en-us/azure/machine-learning/component-reference-v2/image-classification-multilabel>

NO.200 You have an Azure AI 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).

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 AI Search.

NO.201 Drag and Drop Question

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
voiceName

Answer Area

```
var translationConfig = SpeechTranslationConfig.FromSubscription(SPEECH_SUBSCRIPTION_KEY, SPEECH_SERVICE_REGION);
translationConfig.  = "en-US";
translationConfig.  ("de");
```

NO.202 Hotspot Question

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.

Answer Area

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

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

Answer:

Answer Area

```

https://management.azure.com/subscriptions/xxxxxxxx-xxxx-
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 AI 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/>

NO.203 Case Study 2 - Contoso, Ltd.

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

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:

- ICountryJ-[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.

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

Drag and Drop Question

You are developing a solution for the Management-Bookkeepers group to meet the document processing requirements. The solution must contain the following components:

- An Azure AI Document Intelligence resource
- The Azure AI Document Intelligence Studio

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.

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

Create a composite model

Answer Area

Create a new project and load sample documents



Label the sample documents

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>

NO.204 Hotspot Question

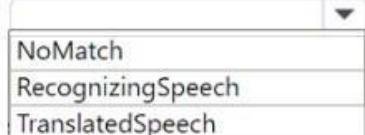
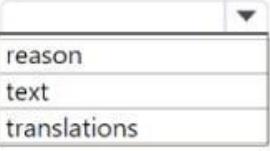
You need to build an app that will use the Azure AI Speech service to translate audio files.

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

```
static void OutputSpeechRecognitionResult(TranslationRecognitionResult translationRecognitionResult)
{
    switch (translationRecognitionResult.
        {
            case ResultReason.
                {
                    Console.WriteLine($"RECOGNIZED: Text={translationRecognitionResult.Text}");
                    foreach (var element in translationRecognitionResult.Translations)
                    {
                        Console.WriteLine($"TRANSLATED into '{element.Key}': {element.Value}");
                    }
                    break;
                }
            case ResultReason.NoMatch:
                Console.WriteLine($"Speech could not be recognized.");
                break;
        }
}
```

**Answer:**

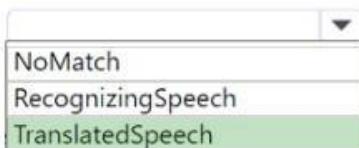
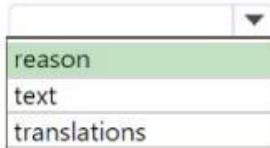
Answer Area

```

static void OutputSpeechRecognitionResult(TranslationRecognitionResult translationRecognitionResult)
{
    switch (translationRecognitionResult.
        {
            case ResultReason.
                {
                    Console.WriteLine($"RECOGNIZED: Text={translationRecognitionResult.Text}");

                    foreach (var element in translationRecognitionResult.Translations)
                    {
                        Console.WriteLine($"TRANSLATED into '{element.Key}': {element.Value}");
                    }
                    break;
                }
            case ResultReason.NoMatch:
                Console.WriteLine($"Speech could not be recognized.");
                break;
        }
}

```

**Explanation:**

`translationRecognitionResult` - The correct option is "Reason". This checks the reason for the result, whether it was successful or a failure.

`ResultReason` - The correct option is "TranslatedSpeech". This will handle the case when the speech has been successfully translated.

NO.205 You have an Azure subscription that contains an Azure AI Document Intelligence resource named DI1. DI1 uses the Standard S0 pricing tier.

You have the files shown in the following table.

Name	Size	Description
File1.pdf	800 MB	Contains scanned images
File2.jpg	1 KB	An image that has 25 x 25 pixels
File3.tiff	5 MB	An image that has 5000 x 5000 pixels

Which files can you analyze by using DI1?

- A. File 1.pdf only
- B. File2.jpg only
- C. File3.tiff only
- D. File2.jpg and File3.tiff only

E. File1.pdf, File2.jpg, and File3.tiff

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/document-intelligence/prebuilt/contract?view=doc-intel-4.0.0#input-requirements>

NO.206 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 AI Services service should you use?

- A. Custom Vision**
- B. Personalizer**
- C. Azure AI Document Intelligence**
- D. Computer Vision**

Answer: C

Explanation:

Azure AI Document Intelligence 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.

Azure AI Document Intelligence 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>

NO.207 Hotspot Question

You have 100,000 images.

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

- Identify road signs in the images and extract the text on the signs.
- Analyze the text to identify well-known locations.

The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

Answer Area

Extract the text:

Azure AI Document Intelligence
Azure AI Language
Azure AI Search
Azure AI Vision

Identify well-known locations:

Azure AI Document Intelligence
Azure AI Language
Azure AI Search
Azure AI Vision

Answer:**Answer Area**

Extract the text:

Azure AI Document Intelligence
Azure AI Language
Azure AI Search
Azure AI Vision

Identify well-known locations:

Azure AI Document Intelligence
Azure AI Language
Azure AI Search
Azure AI Vision

Explanation:

Box 1: Azure AI Vision

Identify road signs in the images and extract the text on the signs.

What is Azure AI Vision v4.0 Read OCR?

The new Azure AI Vision Image Analysis 4.0 REST API offers the ability to extract printed or handwritten text from images in a unified performance-enhanced synchronous API that makes it easy to get all image insights including OCR results in a single API operation. The Read OCR engine is built on top of multiple deep learning models supported by universal script-based models for global language support.

Box 2: Azure AI Search

Analyze the text to identify well-known locations.

Azure AI Search (formerly known as "Azure Cognitive Search") is an enterprise-ready information retrieval system for your heterogeneous content that you ingest into a search index, and surface to users through queries and apps. It comes with a comprehensive set of advanced search technologies, built for high-performance applications at any scale.

Reference:

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

<https://learn.microsoft.com/en-us/azure/search/search-what-is-azure-search>

NO.208 You are building an app that will process scanned expense claims and extract and label the following data:

- Merchant information
- Time of transaction
- Date of transaction
- Taxes paid
- Total cost

You need to recommend an Azure AI Document Intelligence model for the app. The solution must minimize development effort.

What should you use?

- A.** the prebuilt Read model
- B.** a custom template model
- C.** a custom neural model
- D.** the prebuilt receipt model

Answer: D

NO.209 You are building a chatbot for a travel agent. The chatbot will use the Azure OpenAI GPT 3.5 model and will be used to make travel reservations.

You need to maximize the accuracy of the responses from the chatbot.

What should you do?

- A.** Configure the model to include data from the travel agent's database.
- B.** Set the Top P parameter for the model to 0.
- C.** Set the Temperature parameter for the model to 0.
- D.** Modify the system message used by the model to specify that the answers must be accurate.

Answer: D

NO.210 Drag and Drop Question

You have a monitoring solution that uses the Azure AI Anomaly Detector service.

You provision a server named Server1 that has intermittent internet access.

You need to deploy the Azure AI Anomaly Detector to Server1.

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

Actions
Query the prediction endpoint on Server1.
From Server1, run the docker push command.
Install the Docker Engine on Server1.
Query the prediction endpoint of the Azure AI Anomaly Detector in Azure.
From Server1, run the docker run command.
From Server1, run the docker pull command.

Answer Area	
1	
2	
3	
4	

▶
◀
↑
↓

Answer:

Actions
From Server1, run the docker push command.
Query the prediction endpoint of the Azure AI Anomaly Detector in Azure.

Answer Area	
1	Install the Docker Engine on Server1.
2	From Server1, run the docker pull command.
3	From Server1, run the docker run command.
4	Query the prediction endpoint on Server1.

▶
◀
↑
↓

NO.211 You develop a custom question answering project in Azure AI 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:

<https://learn.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/multi-turn>

NO.212 You are developing a method that uses the Azure AI Vision client library. The method will perform optical character recognition (OCR) in images. The method has the following code.

```

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.
(Choose two.)

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>

NO.213 Hotspot Question

You are building an app that will perform speech translation by using the Azure AI Language service. You need to ensure that the language input to the app is supported.

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

NOTE: Each correct selection is worth one point.

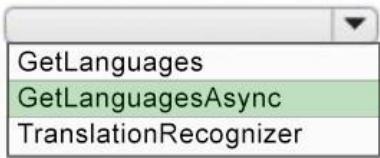
Answer Area

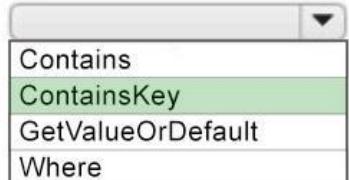
```
...
public static void CheckLanguage(TextTranslationClient client, string language)
{
    Response<GetLanguagesResult> languagesResponse = await
        client. ▾ (scope:"translation").ConfigureAwait(false);
    ▾
    GetLanguages
    GetLanguagesAsync
    TranslationRecognizer

    GetLanguagesResult languages = languagesResponse.Value;
    if (languages.Translation. ▾ (language))
    {
        return true;
    }
    else
    {
        Console.WriteLine($"Sorry, {language} is not a supported language.");
        return false;
    }
}
...
}
```

Answer:

Answer Area

```
...
public static void CheckLanguage(TextTranslationClient client, string language)
{
    Response<GetLanguagesResult> languagesResponse = await
        client. 
            (scope:"translation").ConfigureAwait(false);

    GetLanguagesResult languages = languagesResponse.Value;
    if (languages.Translation. 
    {
        return true;
    }
    else
    {
        Console.WriteLine($"Sorry, {language} is not a supported language.");
        return false;
    }
}
...
}
```

NO.214 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:

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



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

The screenshot shows a Microsoft QnA Maker window. At the top left is a blue icon with two white speech bubbles. To its right, the text "QnA Maker" and "Microsoft" are displayed. On the far right of the title bar are three standard window control buttons: a maximize button, a minimize button, and a close button. The main content area contains several paragraphs of text describing the QnA Maker service, followed by a "Legal Notice" section, and a "Create" button highlighted with a red border.

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 X

QnA Maker

* Name ✓

* Subscription

* Pricing tier (View full pricing details)

* Resource group ✓
Create new

* Resource group location

* Search pricing tier (View full pricing details)

* Search location

* App name ✓
.azurewebsites.net

Info 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

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:

The screenshot shows the Azure Resource Group 'myqnamakerservice'. The left sidebar includes 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'SETTINGS' (with 'Quickstart', 'Resource costs', 'Deployments', 'Policies', 'Properties', and 'Locks'), and a 'Search (Ctrl+I)' bar. The main area displays resource details: Subscription (change) to 'My account', Subscription ID as '<subscription id>', and Deployments with '2 Succeeded'. A table lists 6 items under 'NAME', 'TYPE', and 'LOCATION':

NAME	TYPE	LOCATION
Default	App Service plan	East US
Failure Anomalies - myqnamakerservice-ai	microsoft.insights/alertrules	East US
myqnamakerservice	Search service	West US
myqnamakerservice	Cognitive Services	West US
myqnamakerservice	App Service	East US
qnamakerpp-ai	Application Insights	East US

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

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

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

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

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

Azure QnA service: QNA12345678

STEP 2 Connect your QnA service to your KB.

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

Refresh

* Microsoft Azure Directory ID

Microsoft

* Azure subscription name

documentationteam

* Azure QnA service

qna-maker-10

* Language

English

Step 9: In Step 3, name your knowledge base

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

+ Add URL: <https://support.microsoft.com/en-us/help/12435/windows-10-upgrade-faq> Step 11: In Step 5, Select Create your KB.

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

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

Reference:

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

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

NO.215 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named CS1.

You need to use the SDK to call CS1 to identify requests that contain harmful content.

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

```
client =  (endpoint, AzureKeyCredential(key))
AnalyzeTextOptions
BlocklistClient
ContentSafetyClient
TextCategoriesAnalysis

request =  (text="Your input text")
AddOrUpdateTextBlocklistItemsOptions
AnalyzeTextOptions
TextBlockListMatch
TextCategoriesAnalysis

response = client.analyze_text(request)
```

Answer:

Answer Area

```
client =  (endpoint, AzureKeyCredential(key))
AnalyzeTextOptions
BlocklistClient
ContentSafetyClient
TextCategoriesAnalysis

request =  (text="Your input text")
AddOrUpdateTextBlocklistItemsOptions
AnalyzeTextOptions
TextBlockListMatch
TextCategoriesAnalysis

response = client.analyze_text(request)
```

Explanation:

Box 1: ContentSafetyClient

Box 2: AnalyzeTextOptions

Get started with the Content Safety Studio, REST API, or client SDKs to do basic text moderation. The Azure AI Content Safety service provides you with AI algorithms for flagging objectionable content.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/quickstart-text?tabs=visual-studio%2Cwindows&pivots=programming-language-csharp>

NO.216 Hotspot Question

You have a chatbot that uses Azure OpenAI to generate responses.

You need to upload company data by using Chat playground. The solution must ensure that the chatbot uses the data to answer user questions.

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 options = new
{
    Messages =
    {
        new ChatMessage(ChatRole.User, "What are the differences between Azure Machine Learning and Azure AI services?"),
    },
    AzureExtensionsOptions = new AzureChatExtensionsOptions()
    {
        Extensions =
        {
            new
            {
                AzureChatExtensionConfiguration
                AzureChatExtensionsOptions
                AzureCognitiveSearchChatExtensionConfiguration
            }
        }
    }
};

SearchEndpoint = new Uri(searchEndpoint),
SearchKey = new AzureKeyCredential(searchKey),
IndexName = searchIndex,
...
};
```

Answer:

Answer Area

```

var options = new
{
    ChatCompletionsOptions(),
    CompletionsOptions(),
    Messages =
        StreamingChatCompletions()
};

{
    new ChatMessage(ChatRole.User, "What are the differences between Azure Machine Learning and Azure AI services?"),
},
AzureExtensionsOptions = new AzureChatExtensionsOptions()
{
    Extensions =
    {
        new
        {
            AzureChatExtensionConfiguration,
            AzureChatExtensionsOptions,
            AzureCognitiveSearchChatExtensionConfiguration()
        }
    }
}

SearchEndpoint = new Uri(searchEndpoint),
SearchKey = new AzureKeyCredential(searchKey),
IndexName = searchIndex,
...
};

```

NO.217 Drag and Drop Question

You are building a phone call handling solution that will use the Azure AI Speech service and a custom neural voice.

You need to create a custom speech model.

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

Actions

- Upload a consent statement for the voice talent as a signed PDF file.
- Upload a consent statement for the voice talent as a WAV file.
- Create a custom voice project.
- Upload speech samples as MP3 files.
- Upload speech samples as WMA files.
- Analyze the quality of the audio data and resolve identified issues.
- Train the model by using a neural training method.

Answer Area

- 1.
- 2.
- 3.
- 4.
- 5.

Answer:

Actions	Answer Area
Upload a consent statement for the voice talent as a signed PDF file.	<ol style="list-style-type: none"> <li>1. Create a custom voice project. <li>2. Upload a consent statement for the voice talent as a WAV file. <li>3. Upload speech samples as WMA files. <li>4. Train the model by using a neural training method.
Upload speech samples as MP3 files.	<ol style="list-style-type: none"> <li>5. Analyze the quality of the audio data and resolve identified issues.

Explanation:

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/how-to-custom-speech-create-project>

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/professional-voice-create-consent>

NO.218 Case Study 1 - Wide World Importers

Overview

Existing Environment

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"
}
```

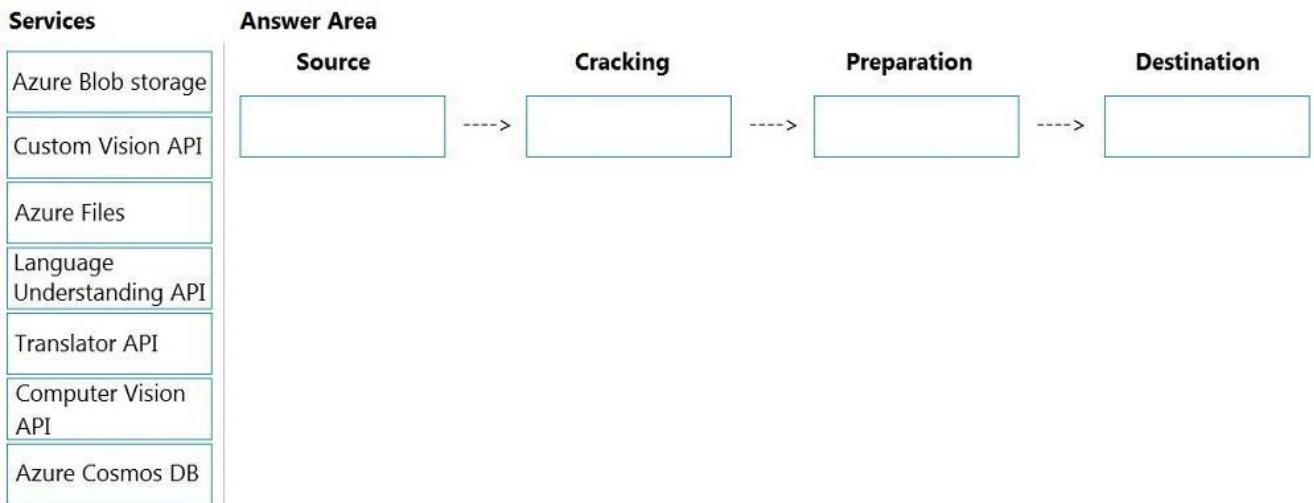
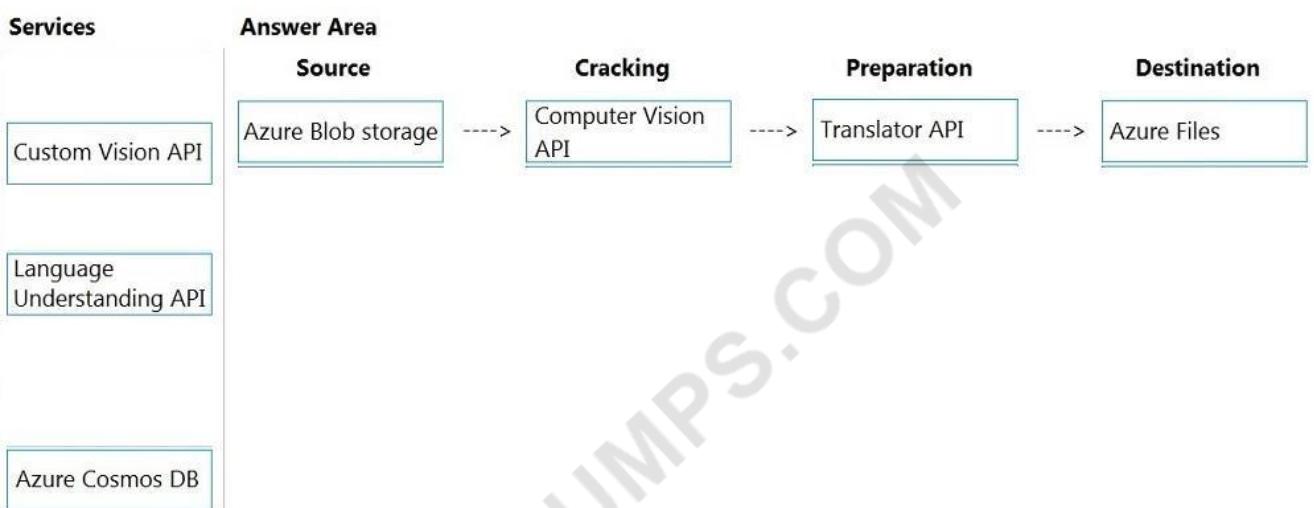
Drag and Drop Question

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.

**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: Azure AI Translator API

Scenario: Product descriptions, transcripts, and all text must be available in English, Spanish, and Portuguese.

Box 4: Azure Files

Scenario: Store all raw insight data that was generated, so the data can be processed later.

Incorrect Answers:

The custom vision API from Microsoft Azure learns to recognize specific content in imagery and becomes smarter with training and time.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-concept-intro>

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

NO.219 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

A data analyst
A data engineer
A data scientist

is responsible for identifying which business rules must be applied to the data of a company.

Answer:

Answer Area

A data analyst
A data engineer
A data scientist

is responsible for identifying which business rules must be applied to the data of a company.

NO.220 You are building an app that will use the Azure AI Video Indexer service.

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

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

Which file format should you use?

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

Answer: B

Explanation:

This step creates the model and gives the option to upload text files to the model.

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

NO.221 You are building a Conversational Language Understanding model.

You need to ensure that the model will support the following sample utterances:

- Set all the lights to on.
- Turn off the lights in the living room.
- What is the current thermostat temperature?
- Lower the temperature of the thermostat by five degrees.

Which three elements should you add to the model?

Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A.** a location Intent
- B.** a change setting entity
- C.** a device intent
- D.** a change setting intent
- E.** a query setting intent
- F.** a device entity

Answer: DEF

Explanation:

To ensure the model supports the given utterances, you need to define the correct intents (actions the user wants to perform) and entities (objects or variables involved in the action).

Change setting intent: This intent will handle commands like "Set all the lights to on" and "Lower the temperature of the thermostat by five degrees." These utterances are focused on changing a device's settings.

Device entity: This entity is necessary to recognize the type of device being controlled, such as "lights" or "thermostat."

Query setting intent: This intent will handle queries like "What is the current thermostat temperature?" since it involves querying the state of a device.

NO.222 Hotspot Question

You are building an app that will translate speech by using the Azure AI Language service.

You need configure the app to translate the speech from English to Italian.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
speech_translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=os.environ.get('SPEECH_KEY'),
region=os.environ.get('SPEECH_REGION'))
speech_translation_config. 


 = "en-US"

speech_translation_config. 


 ("it")

audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
recognizer = speechsdk.translation.TranslationRecognizer(translation_config=speech_translation_config, audio_config=audio_config)
```

Answer:

Answer Area

```
speech_translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=os.environ.get('SPEECH_KEY'),
region=os.environ.get('SPEECH_REGION'))
speech_translation_config. 


 = "en-US"

speech_translation_config. 


 ("it")

audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
recognizer = speechsdk.translation.TranslationRecognizer(translation_config=speech_translation_config, audio_config=audio_config)
```

Explanation:

Box 1: speech_recognition_language

1. Instantiate SpeechTranslationConfig:

Create an instance of the SpeechTranslationConfig class, providing your Azure AI Speech resource key and region.

2. Set the source language:

Use the speech_recognition_language property to set the language of the speech you want to translate.

3. Add target languages:

Call add_target_language() one or more times, passing the language code (e.g., "fr", "es") for each target language.

4. Use the configuration:

Pass the SpeechTranslationConfig object to a TranslationRecognizer or similar object to perform the actual translation.

Box 2: add_target_language

The add_target_language() method in the Azure AI Language service's SpeechTranslationConfig class is used to specify target languages for speech translation. It allows you to add one or more languages to the list of languages that the service will translate the speech into. For example, you can use it to configure the translation to French, Spanish, and Hindi.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/how-to-translate-speech>

NO.223 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 five-minute wav or mp3 file of the voice talent describing the kiosk system
- B.** a five-minute .flac audio file and the associated transcript as a w file
- C.** a .wav or mp3 file of the voice talent consenting to the creation of a synthetic version of their voice
- D.** a .zip file that contains 10-second .wav files and the associated transcripts as .txt files

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.

NO.224 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 AI 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. Migrate the data in Sales to the MongoDB API.

Answer: C

Explanation:

To search across multiple data sources using Azure AI Search, all data needs to be accessible to the Azure Search service. The on-premises Finance data (hosted in Microsoft SQL Server) cannot be directly indexed by Azure Cognitive Search because it is on-premises. The best approach is to mirror Finance to an Azure SQL database, which can be indexed by Azure Cognitive Search alongside the other Azure-hosted data sources (Sales, Logs, and HR).

NO.225 Hotspot Question

You have an Azure subscription that has the following configurations:

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

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

The screenshot shows the Azure Management Portal interface. At the top, the URL is https://management.azure.com/. Below the URL, there are two dropdown menus. The first dropdown contains the following items: "subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12", "subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad", "tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12", and "tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad". The second dropdown contains the following items: "Microsoft.ApiManagement", "Microsoft.CognitiveServices", "Microsoft.ContainerService", and "Microsoft.KeyVault". The "Microsoft.CognitiveServices" item is highlighted with a green background.

Answer:

Answer Area

The screenshot shows the Azure Management Portal interface. At the top, the URL is https://management.azure.com/. Below the URL, there are two dropdown menus. The first dropdown contains the following items: "subscriptions/3edfe572-cb54-3ced-ae12-c5c177f39a12", "subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad", "tenant/3edfe572-cb54-3ced-ae12-c5c177f39a12", and "tenant/8d3591aa-96b8-4737-ad09-00f9b1ed35ad". The "subscriptions/8d3591aa-96b8-4737-ad09-00f9b1ed35ad" item is highlighted with a green background. The second dropdown contains the following items: "Microsoft.ApiManagement", "Microsoft.CognitiveServices", "Microsoft.ContainerService", and "Microsoft.KeyVault". The "Microsoft.CognitiveServices" item is highlighted with a green background.

Explanation:

<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 AI Services through two different resources: A multi-service resource, or a single-service one.

- Multi-service resource:

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

Consolidates billing from the services you use.

NO.226 You have an Azure subscription.

You are building a social media app that will enable users to share images.

You need to ensure that inappropriate content uploaded by the users is blocked. The solution must minimize development effort.

What are two tools that you can use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.** Azure AI Document Intelligence
- B.** Microsoft Defender for Cloud Apps
- C.** Azure AI Content Safety
- D.** Azure AI Vision
- E.** Azure AI Custom Vision

Answer: CD

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/concept-detecting-adult-content>

NO.227 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:

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

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>

NO.228 You have an Azure subscription that contains an Azure OpenAI resource.

You need to build an app that will suggest product names from a given product description.

Which model should you use?

- A.** Whisper
- B.** DALL-E
- C.** embeddings
- D.** GPT-4

Answer: D

Explanation:

To suggest product names from a given product description, the ideal model is GPT-4. GPT-4 is a powerful language model that can understand and generate human-like text based on given inputs, making it well-suited for tasks such as generating creative suggestions like product names from descriptions.

Whisper is used for speech-to-text conversion, not for generating text suggestions.

DALL-E is designed for generating images from text prompts, not for text generation tasks like naming products.

Embeddings are used for tasks involving similarity search and semantic understanding but not for generating new text like product names.

NO.229 Drag and Drop Question

You are building a Language Understanding model for purchasing tickets.

You have the following utterance for an intent named PurchaseAndSendTickets.

Purchase [2 audit business] tickets to [Paris] [next Monday] and send tickets to [email@domain.com]

You need to select the entity types. The solution must use built-in entity types to minimize training data whenever possible.

Which entity type should you use for each label? To answer, drag the appropriate entity types to the correct labels. Each entity type may be used once, more than once, or not at all.

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

Entity Types**Answer Area**

Email

List

Regex

GeographyV2

Machine learned

Paris:

email@domain.com:

2 audit business:

Answer:**Entity Types****Answer Area**

List

Regex

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>

NO.230 Case Study 2 - Contoso, Ltd.

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

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:

- ICountryJ-[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.

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

You are developing the knowledgebase by using Azure AI 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: C

Explanation:

The wiki contains text in English, French and Portuguese. Scenario: All planned projects must support English, French, and Portuguese.

The Document Extraction skill extracts content from a file within the enrichment pipeline. This allows you to take advantage of the document extraction step that normally happens before the skillset execution with files that may be generated by other skills.

Note: The Translator Text API will be used to determine the from language. The Language detection skill is not required.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-document-extraction>

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-text-translation>

NO.231 Hotspot Question

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.
        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
```

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:

<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)

NO.232 Hotspot Question

You have an Azure subscription.

You plan to build a solution that will analyze scanned documents and export relevant fields to a database.

You need to recommend an Azure AI Document Intelligence model for the following types of documents:

- Expenditure request authorization forms
- Structured and unstructured survey forms
- Structured employment application forms

The solution must minimize development effort and costs.

Which type of model should you recommend for each document type? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Expenditure request authorization forms:

Custom neural
Custom template
Prebuilt contract
Prebuilt invoice
Prebuilt layout

Structured employment application forms:

Custom neural
Custom template
Prebuilt contract
Prebuilt invoice
Prebuilt layout

Structured and unstructured survey forms:

Custom neural
Custom template
Prebuilt contract
Prebuilt invoice
Prebuilt layout

Answer:

Answer Area

Expenditure request authorization forms:

Custom neural
Custom template
Prebuilt contract
Prebuilt invoice
Prebuilt layout

Structured employment application forms:

Custom neural
Custom template
Prebuilt contract
Prebuilt invoice
Prebuilt layout

Structured and unstructured survey forms:

Custom neural
Custom template
Prebuilt contract
Prebuilt invoice
Prebuilt layout

Explanation:

For expenditure request authorization forms, you should choose the Prebuilt layout model. This model is designed to handle structured or semi-structured documents, making it suitable for forms with fields and values.

For structured employment application forms, you should choose the Custom template model. This model is well-suited for documents with a consistent and predictable layout, making it ideal for structured forms like employment applications.

For structured and unstructured survey forms, you should choose the Custom neural model. This model is designed to handle a variety of document types, including those with mixed structures, making it ideal for extracting data from both structured and unstructured survey forms.

NO.233 You have an Azure subscription that contains an AI enrichment pipeline in Azure AI 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:

<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.

NO.234 You are building a knowledge mining solution that will recognize Personally Identifiable Information (PII) by using Azure AI Search.

You need to build an indexer pipeline that will flag the PII. The solution must minimize development effort.

What should you include in the pipeline to flag the PII?

- A. an Azure AI Search built-in skill
- B. an Azure function
- C. an Azure logic app
- D. an Azure AI Search custom skill

Answer: A

Explanation:

Azure AI Search, Personally Identifiable Information (PII) Detection cognitive skill The PII Detection skill extracts personal information from an input text and gives you the option of masking it. This skill uses the detection models provided in Azure AI Language.

Reference:

<https://learn.microsoft.com/en-us/azure/search/cognitive-search-skill-pii-detection>

NO.235 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

NO.236 Hotspot Question

You have an Azure subscription.

You need to create a new resource that will generate fictional stories in response to user prompts.

The solution must ensure that the resource uses a customer-managed key to protect data.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
az cognitiveservices account create -n myresource -g myResourceGroup --kind
    --sku S -l WestEurope
    --api-properties
    --assign-identity
    --encryption
    "keySource": "Microsoft.KeyVault",
    "keyVaultProperties": {
        "keyName": "KeyName",
        "keyVersion": "secretVersion",
        "keyVaultUri": "https://issue23056kv.vault.azure.net/"
    }
}
}'
```

AI Services
LanguageAuthoring
OpenAI

Answer:**Answer Area**

```
az cognitiveservices account create -n myresource -g myResourceGroup --kind
    --sku S -l WestEurope
    --api-properties
    --assign-identity
    --encryption
    "keySource": "Microsoft.KeyVault",
    "keyVaultProperties": {
        "keyName": "KeyName",
        "keyVersion": "secretVersion",
        "keyVaultUri": "https://issue23056kv.vault.azure.net/"
    }
}
}'
```

AI Services
LanguageAuthoring
OpenAI

Explanation:

<https://learn.microsoft.com/en-us/cli/azure/cognitiveservices/account?view=azure-cli-latest#az-cognitiveservices-account-create>

NO.237 What is used to define a query in a stream processing jobs in Azure Stream Analytics?

- A. SQL
- B. XML
- C. YAML
- D. KQL

Answer: A

NO.238 Hotspot Question

You have 100,000 images.

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

- Identify road signs in the images and generate a short description of each road sign.
- Analyze the descriptions to generate a report about the different types of road signs and how often each type occurred.

The solution must minimize costs.

What should you use for each action? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Answer Area

Identify the road signs and generate a short description of each road sign:

Azure AI Document Intelligence
Azure AI Phi-3-mini
Azure AI Vision
Azure OpenAI GPT-4-Turbo

Analyze the descriptions to generate a report about the different types of road signs and how often each type occurred:

Azure AI Document Intelligence
Azure AI Language
Azure AI Phi-3-mini
Azure OpenAI GPT-4-Turbo

Answer:**Answer Area**

Identify the road signs and generate a short description of each road sign:

Azure AI Document Intelligence
Azure AI Phi-3-mini
Azure AI Vision
Azure OpenAI GPT-4-Turbo

Analyze the descriptions to generate a report about the different types of road signs and how often each type occurred:

Azure AI Document Intelligence
Azure AI Language
Azure AI Phi-3-mini
Azure OpenAI GPT-4-Turbo

Explanation:**Box 1: Azure AI Vision**

To identify road signs in images using an Azure AI service, you can leverage the Azure AI Vision service, specifically the OCR (Optical Character Recognition) feature. OCR is a machine-learning technique that extracts text from images, including those of road signs.

Box 2: Azure AI Document Intelligence

Azure AI Document Intelligence is a cloud-based Azure AI service that enables you to build intelligent document processing solutions. Massive amounts of data, spanning a wide variety of data types, are stored in forms and documents. Document Intelligence enables you to effectively manage the velocity at which data is collected and processed and is key to improved operations, informed data-driven decisions, and enlightened innovation.

Reference:

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

<https://learn.microsoft.com/en-us/azure/ai-services/document-intelligence/overview>

NO.239 You successfully run the following HTTP request.

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

a54745f708a1/resourceGroups/RG1/providers/Microsoft.CognitiveServices/accounts/contosol/regenerateKey?api-version=2017-04-18

Body{"keyName": "Key2"}

What is the result of the request?

A. A key for Azure AI 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>

NO.240 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 AI 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:

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>

NO.241 Drag and Drop Question

You have an Azure subscription that contains an Azure AI Document Intelligence resource named DI1 and a storage account named sa1. The sa1 account contains a blob container named blob1 and an Azure Files share named share1.

You plan to build a custom model named Model1 in DI1.

You create sample forms and JSON files for Model1.

You need to train Model1 and retrieve the ID of 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.

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

Actions
Call the Get info REST API function.
Retrieve the access key for sa1.
Call the Build model REST API function.
Upload the forms and JSON files to share1.
Upload the forms and JSON files to blob1.
Create a shared access signature (SAS) URL for blob1.
Call the Get model REST API function.

Answer Area**Answer:**

Actions
Call the Get info REST API function.
Retrieve the access key for sa1.
Upload the forms and JSON files to share1.

Answer Area

Upload the forms and JSON files to blob1.
Create a shared access signature (SAS) URL for blob1.
Call the Build model REST API function.
Call the Get model REST API function.

Explanation:

Upload the forms and JSON files to blob1: Ensure that your sample forms and JSON files are uploaded to the blob container named blob1 in the storage account sa1.

Create a shared access signature (SAS) URL for blob1: Generate a SAS URL for the blob container to provide secure access to the files.

Call the Build model REST API function: Use the SAS URL to call the Build model REST API function in DI1 to start the training process.

Call the Get model REST API function: After the training is complete, call the Get model REST API function to retrieve the ID of Model1.

[https://learn.microsoft.com/en-us/rest/api/aiservices/document-models/build-model?view=rest-aiservices-v4.0%20\(2024-07-31-preview\)&tabs=HTTP#tabpanel_1_HTTP](https://learn.microsoft.com/en-us/rest/api/aiservices/document-models/build-model?view=rest-aiservices-v4.0%20(2024-07-31-preview)&tabs=HTTP#tabpanel_1_HTTP)

NO.242 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named Resource1. You create the following cURL command.

```
curl -X POST "https://resource1.cognitiveservices.azure.com/contentsafety/text:detectProtectedMaterial?api-version=2024-09-01" \
-H "Content-Type: application/json" \
-H "Ocp-Apim-Subscription-Key: <your_subscription_key>" \
-d '{ "text": "<your_content>" }'
```

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

NOTE: Each correct selection is worth point.

Answer Area

Statements	Yes	No
The <code>text</code> value must use JSON-formatted text.	<input type="radio"/>	<input type="radio"/>
The command will analyze inputted text and identify whether the text contains published song lyrics.	<input type="radio"/>	<input type="radio"/>
The <code>Ocp-Apim-Subscription-Key</code> value must contain the ID of the Azure subscription that hosts Resource1.	<input type="radio"/>	<input type="radio"/>

Answer:

Statements	Yes	No
The <code>text</code> value must use JSON-formatted text.	<input checked="" type="radio"/>	<input type="radio"/>
The command will analyze inputted text and identify whether the text contains published song lyrics.	<input checked="" type="radio"/>	<input type="radio"/>
The <code>Ocp-Apim-Subscription-Key</code> value must contain the ID of the Azure subscription that hosts Resource1.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Box 1: Yes

Using cURL to POST JSON data

We can use cURL to POST JSON data to a server. To send a POST request with cURL, we need to use the `-X` flag to specify the HTTP method and the `-H` flag to set the Content-Type header to `application/json`. We also need to pass the JSON data in the request body using the `-d` flag.

Box 2: Yes

The Protected material detection APIs scan the output of large language models to identify and flag known protected material. The APIs are designed to help organizations prevent the generation of content that closely matches copyrighted text or code.

The Protected material text API flags known text content (for example, song lyrics, articles, recipes, and selected web content) that might be output by large language models.

Box 3: No

This is the subscription key, not the subscription ID. They are not the same.

Your Azure Subscription ID is different from the Subscription Key of your resource. You can find your Subscription ID on the Overview tab. For authentication, Your API key is located on Keys and Endpoint tab (you can use Key 1 for authentication). Key 2 is more like a backup key and can be useful for avoiding service interruption when generating new keys.

Reference:

<https://saturncloud.io/blog/how-do-i-post-json-data-with-curl>

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/concepts/protected-material>

<https://learn.microsoft.com/en-us/answers/questions/447395/authentication-for-azure-form-recognizer>

<https://learn.microsoft.com/en-us/azure/api-management/api-management-subscriptions>

NO.243 SIMULATION

You need to configure and publish bot12345678 to support task management. The intent must be named TaskReminder. The LU Down for the intent is in the C:\Resources\LU folder.

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

Answer:

Step 1: Open Microsoft Bot Framework Composer

Step 2: Select the bot bot12345678

Step 3: Select Import existing resources. Read the instructions on the right side of the screen and select Next.

Add new publishing profile

A publishing profile provides the secure connectivity required to publish your bot.

Create new resources

Import existing resources

Hand off to admin

Import existing resources

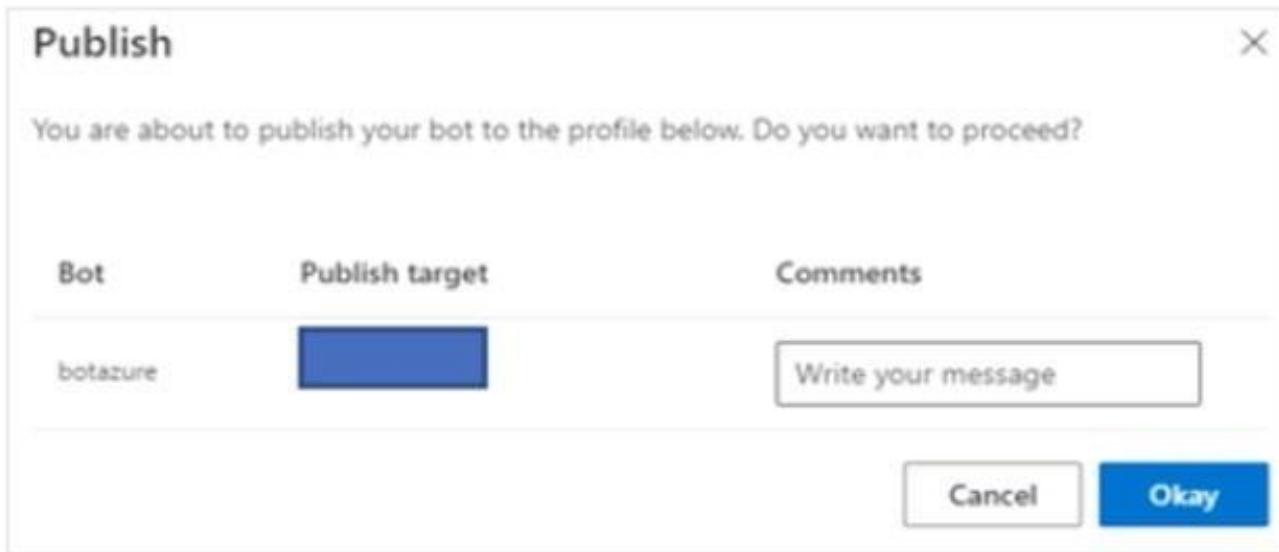
Select this option to import existing Azure resources and publish a bot.

Edit the JSON file in the Publish Configuration field. You will need to find the values of associated resources in your Azure portal. A list of required and optional resources may include:

- Microsoft Application Registration
- Azure Hosting
- Microsoft Bot Channels Registration
- Azure Cosmos DB
- Application Insights
- Azure Blob Storage
- Microsoft Language Understanding (Luis)
- Microsoft QnA Maker

[Learn More](#)

Step 4: Browse to the C:\Resources\LU folder and select the available .lu file Step 5: In the pop-up window Importing existing resources, modify the JSON file content based on your resources information: Name the intent TaskReminder Step 6: Select Publish from the Composer menu. In the Publish your bots pane, select the bot to publish (bot12345678), then select a publish profile from the Publish target drop-down list.



Reference:

<https://docs.microsoft.com/en-us/composer/how-to-publish-bot>

NO.244 You are developing an app that will use the text-to-speech capability of the Azure AI Speech service. The app will be used in motor vehicles.

You need to optimize the quality of the synthesized voice output.

Which Speech Synthesis Markup Language (SSML) attribute should you configure?

- A. the style attribute of the ms tts: express-as element
- B. the effect attribute of the voice element
- C. the pitch attribute of the prosody element
- D. the level attribute of the emphasis element

Answer: B

Explanation:

Optimize the auditory experience when providing high-fidelity speech in cars, buses, and other enclosed automobiles.

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/speech-synthesis-markup-voice>:

NO.245 Hotspot Question

You have an app named App1 that uses Azure AI Document Intelligence to analyze medical records and provide pharmaceutical dosage recommendations for patients.

You send a request to App1 and receive the following response.

```
{  
  "status": "succeeded",  
  "createdDateTime": "2023-09-14T21:01:02Z",  
  "lastUpdatedDateTime": "2023-09-14T21:01:03Z",  
  "analyzeResult": {  
    "apiVersion": "2023-07-31",  
    "modelId": "prebuilt-healthInsuranceCard.us",  
    "stringIndexType": "utf16CodeUnit",  
    "content": "Blood Pressure 118/72",  
    "pages": [  
      {  
        ...  
        "words": [  
          {  
            "content": "Blood",  
            "polygon": [ ... ],  
            "confidence": 0.766,  
            "span": { ... }  
          },  
          {  
            "content": "Pressure",  
            "polygon": [ ... ],  
            "confidence": 0.716,  
            "span": { ... }  
          },  
          {  
            "content": "118/72",  
            "polygon": [ ... ],  
            "confidence": 0.761,  
            "span": { ... }  
          }  
        ],  
        ...  
        "documents": [  
          {  
            "docType": "healthInsuranceCard.us",  
            "boundingRegions": [ ... ]  
          }  
        ],  
        "fields": {},  
        "confidence": 1,  
        "spans": [ ... ]  
      }  
    ]  
  }  
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The chosen model is suitable for the intended use case.	<input type="radio"/>	<input type="radio"/>
The text content was recognized with greater than 70 percent confidence.	<input type="radio"/>	<input type="radio"/>
The form elements were recognized with greater than 70 percent confidence.	<input type="radio"/>	<input type="radio"/>

Answer:**Answer Area**

Statements	Yes	No
The chosen model is suitable for the intended use case.	<input type="radio"/>	<input checked="" type="radio"/>
The text content was recognized with greater than 70 percent confidence.	<input checked="" type="radio"/>	<input type="radio"/>
The form elements were recognized with greater than 70 percent confidence.	<input type="radio"/>	<input checked="" type="radio"/>

NO.246 You have an Azure subscription that contains an Azure App Service app named App1. You provision a multi-service Azure AI Services resource named CSAccount1. You need to configure App1 to access CSAccount1. The solution must minimize administrative effort. What should you use to configure App1?

- A. a system-assigned managed identity and an X.509 certificate
- B. the endpoint URI and an OAuth token
- C. the endpoint URI and a shared access signature (SAS) token
- D. the endpoint URI and subscription key

Answer: D

NO.247 You have an Azure AI Services resource named lu1. It contains a Conversational Language Understanding model.

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.

Reference:

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

NO.248 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

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

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

Answer:

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 Azure portal. At the top, there are four tabs: 'Connect to your data' (underlined), 'Enrich content (Optional)', 'Customize target index', and 'Create an indexer'. Below these tabs, a descriptive text explains the process of creating a search index from an existing Azure data source. The 'Data Source' dropdown is highlighted with a red circle containing the number 1, and it is set to 'Samples'. The 'Type' dropdown shows 'realestate-us-sample' and the 'Name' dropdown shows 'hotels-sample', both of which are also highlighted with red circles containing the numbers 2 and 3 respectively.

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.

Reference:

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

NO.249 You have an Azure AI service model named Model1 that identifies the intent of text input.

You develop a Python app named App1.

You need to configure App1 to use Model1.

Which package should you add to App1?

- A. azure-cognitiveservices-language-textanalytics
- B. azure-ai-language-conversations
- C. azure-mgmt-cognitiveservices
- D. azure-cognitiveservices-speech

Answer: B

Explanation:

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

<https://pypi.org/project/azure-ai-language-conversations/>

NO.250 You have an Azure subscription. The subscription contains an Azure OpenAI resource that hosts a GPT-3.5 Turbo model named Model1.

You configure Model1 to use the following system message: "You are an AI assistant that helps people solve mathematical puzzles. Explain your answers as if the request is by a 4-year-old." Which type of prompt engineering technique is this an example of?

- A. few-shot learning
- B. affordance
- C. chain of thought
- D. priming

Answer: D

NO.251 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 AI Search service.

During the past 12 months, query volume steadily increased.

You discover that some search query requests to the Azure AI 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 Azure AI 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>

NO.252 Hotspot Question

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
Azure Databricks is an Apache Spark-based analytics platform.	<input type="radio"/>	<input type="radio"/>
Azure Analysis Services is used for transactional workloads.	<input type="radio"/>	<input type="radio"/>
Azure Data Factory orchestrates data integration workflows.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
Azure Databricks is an Apache Spark-based analytics platform.	<input checked="" type="radio"/>	<input type="radio"/>
Azure Analysis Services is used for transactional workloads.	<input type="radio"/>	<input checked="" type="radio"/>
Azure Data Factory orchestrates data integration workflows.	<input checked="" type="radio"/>	<input type="radio"/>

NO.253 Hotspot Question

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.

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)

In other that the model can be exported to be used in iOS device (an edge device).

Reference:

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

NO.254 You train a Conversational Azure AI 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

NO.255 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

NO.256 You deploy a web app that is used as a management portal for indexing in Azure AI 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:

A can not be the answer as you regenerated the secondary key after your already add to your app.

The right order to minimize downtime is to regenerate the secondary, add to your app and then regenerate the primary.

If you change the application to use the secondary key and then you regenerate the key the application is not going to work.

NO.257 You have an Azure subscription that contains an Azure AI Anomaly Detector resource.

You deploy a Docker host server named Server1 to the on-premises network. You need to host an instance of the Azure AI Anomaly Detector service on Server1. Which parameter should you include in the docker run command?

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

Answer: B

Explanation:

The Eula, Billing, and ApiKey options must be specified to run the container; otherwise, the container won't start. For more information, see Billing. The ApiKey value is the Key from the Keys and Endpoints page in the LUIS portal and is also available on the Azure AI Services resource keys page. <https://learn.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-configuration#example-docker-run-commands>

NO.258 Hotspot Question

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
Platform as a service (PaaS) database offerings in Azure require less setup and configuration effort than infrastructure as a service (IaaS) database offerings.	<input type="radio"/>	<input type="radio"/>
Platform as a service (PaaS) database offerings in Azure provide end users with the ability to control and update the operating system version.	<input type="radio"/>	<input type="radio"/>
All relational and non-relational platform as a service (PaaS) database offerings in Azure can be paused to reduce costs.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
Platform as a service (PaaS) database offerings in Azure require less setup and configuration effort than infrastructure as a service (IaaS) database offerings.	<input checked="" type="radio"/>	<input type="radio"/>
Platform as a service (PaaS) database offerings in Azure provide end users with the ability to control and update the operating system version.	<input type="radio"/>	<input checked="" type="radio"/>
All relational and non-relational platform as a service (PaaS) database offerings in Azure can be paused to reduce costs.	<input type="radio"/>	<input checked="" type="radio"/>

NO.259 You build a chatbot that uses the Azure OpenAI GPT 3.5 model.

You need to improve the quality of the responses from the chatbot. The solution must minimize development effort.

What are two ways to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct answer is worth one point.

- A.** Fine-tune the model.
- B.** Provide grounding content.
- C.** Add sample request/response pairs.
- D.** Retrain the language model by using your own data.
- E.** Train a custom large language model (LLM).

Answer: BC

NO.260 Drag and Drop Question

You have a web app that uses Azure AI 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.

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

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

Answer Area

- Add a new query key.
- Change the app to use the new key.
- Delete the compromised key.



Explanation:

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

NO.261 Drag and Drop Question

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You need to analyze an image to obtain a text description.

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

Actions

- Create a new deployment and select a DALL-E model.
- In the System message field, enter **You are an AI assistant that describes images.**
- Open **Chat playground** and select the deployed model.
- Create a new deployment, select a GPT-4 model, and set Model version to **vision-preview**.
- In the Chat session pane, enter a text prompt of **Describe this image**, and upload an image by using the attachment button.
- Create a new deployment, select a text-embedding-ada-002 model, and set Model version to **2.0**.
- Open **Completions playground** and select the deployed model.

Answer Area

- 1.
- 2.
- 3.
- 4.

**Answer:****Actions**

- Create a new deployment, select a GPT-4 model, and set Model version to **vision-preview**.

Answer Area

1. Create a new deployment and select a DALL-E model.
2. In the System message field, enter **You are an AI assistant that describes images.**
3. Open **Chat playground** and select the deployed model.
4. In the Chat session pane, enter a text prompt of **Describe this image**, and upload an image by using the attachment button.



- Create a new deployment, select a text-embedding-ada-002 model, and set Model version to **2.0**.

- Open **Completions playground** and select the deployed model.

Explanation:

1. Create a new deployment and select a DALL-E model. (DALL-E models are designed to work with image generation and analysis, which is necessary to obtain a text description from an image.)
2. In the System message field, enter 'You are an AI assistant that describes images.' (Setting up the system message clarifies the task for the model, specifying its role in the interaction.)
3. Open Chat playground and select the deployed model. (The playground allows you to interact with the deployed model.)
4. In the Chat session pane, enter a text prompt of 'Describe this image,' and upload an image by using the attachment button. (This step enables interaction with the model by providing the image and the instruction to describe it.)

NO.262 Hotspot Question

You have an app that uses the Azure AI Language custom question answering service. You need to add alternatives for the word testing by using the Authoring API.

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

NOTE: Each correct selection is worth one point.

Answer Area

{

"alterations": [▼
"phrases": [▼
"synonyms": [▼
"value": [▼

{

"alterations": [▼
"phrases": [▼
"synonyms": [▼
"value": [▼

"Testing",

"Trials",

"Evaluate",

]

}

]

}

Answer:

Answer Area

```
{  
  "alterations": [  
    "phrases": [  
      "synonyms": [  
        "value": [  
          "Testing",  
          "Trials",  
          "Evaluate",  
        ]  
      ]  
    ]  
  ]  
}
```

Explanation:

Reference:

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

NO.263 Drag and Drop Question

Match the Azure Cosmos DB APIs to the appropriate data structures. To answer, drag the appropriate API from the column on the left to its data structure on the right. Each API may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

APIs

Cassandra API

Gremlin API

MongoDB API

Table API

Answer Area

Graph data

JSON documents

Key/value data

Answer:**APIs**

Cassandra API

Gremlin API

MongoDB API

Table API

Answer Area

Gremlin API

Graph data

MongoDB API

JSON documents

Table API

Key/value data

NO.264 Hotspot Question

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
Stream processing has access to the most recent data received or data within a rolling time window.	<input type="radio"/>	<input type="radio"/>
Batch processing must occur immediately and have latency in the order of seconds or milliseconds.	<input type="radio"/>	<input type="radio"/>
Stream processing is used for simple response functions, aggregates, or calculations such as rolling averages.	<input type="radio"/>	<input type="radio"/>

Answer:**Answer Area**

Statements	Yes	No
Stream processing has access to the most recent data received or data within a rolling time window.	<input checked="" type="radio"/>	<input type="radio"/>
Batch processing must occur immediately and have latency in the order of seconds or milliseconds.	<input type="radio"/>	<input checked="" type="radio"/>
Stream processing is used for simple response functions, aggregates, or calculations such as rolling averages.	<input checked="" type="radio"/>	<input type="radio"/>

NO.265 What is a primary characteristic of a relational database?

- A. data is queried and manipulated by using a variant of the SQL language
 B. a lack of dependencies between tables

- C. a flexible data structure
- D. a large amount of duplicate data

Answer: A

Explanation:

A primary characteristic of a relational database is that it organizes data into tables with rows and columns and allows for querying and manipulation of the data using Structured Query Language (SQL) or its variants.

NO.266 Drag and Drop Question

You have an Azure subscription that contains a storage account named sa1 and an Azure AI Document Intelligence resource named DI1.

You need to create and train a custom model in DI1 by using Document Intelligence Studio. The solution must minimize development effort.

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

Actions	Answer Area
Upload five sample documents.	
Upload 50 sample documents.	
Upload JSON files that contain the document layout and labels.	
Train and test the model.	
Create a custom model project and link the project to sa1.	
Apply labels to the sample documents.	

Answer:

Actions	Answer Area
Upload 50 sample documents.	
Upload JSON files that contain the document layout and labels.	
	Create a custom model project and link the project to sa1.
	Upload five sample documents.
	Apply labels to the sample documents.
	Train and test the model.

NO.267 SIMULATION

You need to create and publish a bot that will use Language Understanding and QnA Maker. The bot must be named bot12345678. You must publish the bot by using the User1-12345678@abc.com account.

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

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

Answer:

Step 1: Sign in to the QnAMaker.ai portal with your Azure credentials. Use the User1-12345678@abc.com account

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

Publish on the page.

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

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

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

[Create Bot](#)

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

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

Postman

Curl

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

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

[Edit Service](#)

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

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

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

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

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

[Create Bot](#)

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

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

Postman

Curl

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

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

[Edit Service](#)

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

Configure the Azure bot service.

Bot name: bot12345678

The bot will be created.

Reference:

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

NO.268 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:

You should also consider adding false positive examples to the None intent.

Reference:

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

NO.269 Hotspot Question

You have an Azure subscription.

You plan to build a solution that will analyze scanned documents and export relevant fields to a database.

You need to recommend which Azure AI service to deploy for the following types of documents:

- Internal expenditure request authorization forms
- Supplier invoices

The solution must minimize development effort.

What should you recommend for each document type? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Internal expenditure request authorization forms:

An Azure AI Document Intelligence custom model
An Azure AI Document Intelligence pre-built model
Azure AI Custom Vision
Azure AI Immersive Reader
Azure AI Vision

Supplier invoices:

An Azure AI Document Intelligence custom model
An Azure AI Document Intelligence pre-built model
Azure AI Custom Vision
Azure AI Immersive Reader
Azure AI Vision

Answer:

Answer Area

Internal expenditure request authorization forms:

An Azure AI Document Intelligence custom model
An Azure AI Document Intelligence pre-built model
Azure AI Custom Vision
Azure AI Immersive Reader
Azure AI Vision

Supplier invoices:

An Azure AI Document Intelligence custom model
An Azure AI Document Intelligence pre-built model
Azure AI Custom Vision
Azure AI Immersive Reader
Azure AI Vision

NO.270 Hotspot Question

You plan use the Azure AI Custom Vision service to deploy a custom model that will recognize objects in an image and return the coordinates of the objects.

You need to build a proof of concept (PoC) that will create the custom model and load images to train.

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

```
private TrainingProject CreateProject()
{
    var domains = trainingApi.GetDomains();
    var objDetectionDomain = domains.FirstOrDefault(d => d.Type == "Classification");
    project = trainingApi.CreateProject("PackageRecognizer", null, objDetectionDomain.Id);
    return project;
}
```

CustomVisionPredictionClient
CustomVisionPredictionClientExtentions
CustomVisionTrainingClient
CustomVisionTrainingClientConfiguration

"Classification"
"Landmarks"
"ObjectDetection"
"Retail (compact)"

Answer:

Answer Area

```

private TrainingProject CreateProject(
    CustomVisionPredictionClient trainingApi)
{
    var domains = trainingApi.GetDomains();
    var objDetectionDomain = domains.FirstOrDefault(d => d.Type ==
        "ObjectDetection");
    project = trainingApi.CreateProject("PackageRecognizer", null, objDetectionDomain.Id);
    return project;
}

```

Explanation:**trainingApi:**

The `CustomVisionTrainingClient` is used to train and manage custom vision models, making it the correct choice for creating and training an object detection model. The other options (e.g., `CustomVisionPredictionClient`) are used for making predictions, not training.

Domain Type:

Since the goal is to recognize objects in an image and return their coordinates, `ObjectDetection` is the correct domain type. This allows the model to detect and locate multiple objects in an image, rather than just classifying the entire image into a category.

NO.271 You are designing an Azure AI solution to identify defective products on a production line. You have a real-time video feed and an image library of sample products that are approved or rejected manually.

You need to recommend a service that meets the following requirements:

- Monitors the video feed and identifies the defective products.
- Can train a new model by using the image library.
- Minimizes development effort.

What should you recommend?

- A.** Azure AI Vision
- B.** Azure AI Custom Vision
- C.** Azure AI Video Indexer
- D.** Azure Machine Learning

Answer: B

Explanation:

Use the service when you have specific requirements that the basic Vision service's image analysis can't provide. For example, it's good for recognizing unusual objects, manufacturing defects, or providing detailed custom classifications.

Don't use the service if you need basic object detection or face detection. Use Face or Vision services

instead.

Don't use the service for basic visual analysis. Use vision capable models from Azure OpenAI or open-source models in Azure Machine Learning instead.

Reference:

<https://learn.microsoft.com/en-us/azure/architecture/data-guide/ai-services/image-video-processing>

NO.272 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.** Azure AI Vision Image Analysis
- B.** the Read API in Azure AI Vision
- C.** Azure AI Document Intelligence
- D.** Azure AI Language

Answer: B

Explanation:

Use this interface to get the result of a Read operation, employing the state-of-the-art Optical Character Recognition (OCR) algorithms optimized for text-heavy documents.

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

NO.273 You build a bot by using the Microsoft Bot Framework SDK.

You start the bot on a local computer.

You need to validate the functionality of the bot.

What should you do before you connect to the bot?

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

Answer: A

Explanation:

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

NO.274 Hotspot Question

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

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

Answer:

Answer Area

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


|            |     |
|------------|-----|
| "capacity" | 1   |
| "count"    | 60  |
| "maxValue" | 100 |
| "size"     | 600 |

  
    },  
    "properties": {  
        "model": {  
            "format": "OpenAI",  
            ...  
        }  
    }  
}
```

NO.275 HOTSPOT

You have an Azure subscription.

You need to deploy an Azure OpenAI chat endpoint that will answer questions related to Azure AI services.

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

NOTE: Each correct selection is worth one point

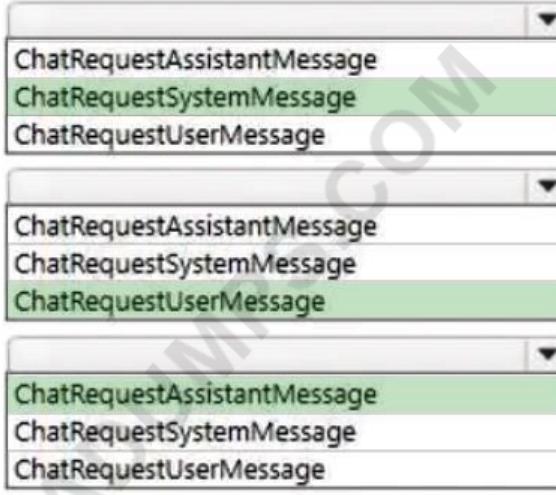
Answer Area

```
OpenAIClient client = new(new Uri(endpoint), new AzureKeyCredential(key));  
var chatCompletionsOptions = new ChatCompletionsOptions()  
{  
    DeploymentName = "gpt-35-turbo",  
    Messages =  
    {  
        new ChatRequestAssistantMessage(),  
        new ChatRequestSystemMessage(),  
        new ChatRequestUserMessage()  
    },  
    MaxTokens = 100  
};
```

Answer:

Answer Area

```
OpenAIClient client = new(new Uri(endpoint), new AzureKeyCredential(key));  
var chatCompletionsOptions = new ChatCompletionsOptions()  
{  
    DeploymentName = "gpt-35-turbo",  
    Messages =  
    {  
        new ChatRequestAssistantMessage(),  
        new ChatRequestSystemMessage(),  
        new ChatRequestUserMessage()  
    },  
    MaxTokens = 100  
}
```



The screenshot shows three separate dropdown menus stacked vertically. Each menu has a header 'new' followed by a list of three items: 'ChatRequestAssistantMessage', 'ChatRequestSystemMessage', and 'ChatRequestUserMessage'. In each menu, the third item, 'ChatRequestUserMessage', is highlighted with a green background, indicating it is the selected option.

NO.276 Hotspot Question

You have an Azure subscription that contains an Azure OpenAI resource. Multiple different models are deployed to the resource.

You are building a chatbot by using Chat playground in Azure AI Studio.

You need to ensure that the chatbot generates text in concise formal business language. The solution must meet the following requirements:

- Reduce the cost of running the language model.
- Maintain the size of the chatbot history window.

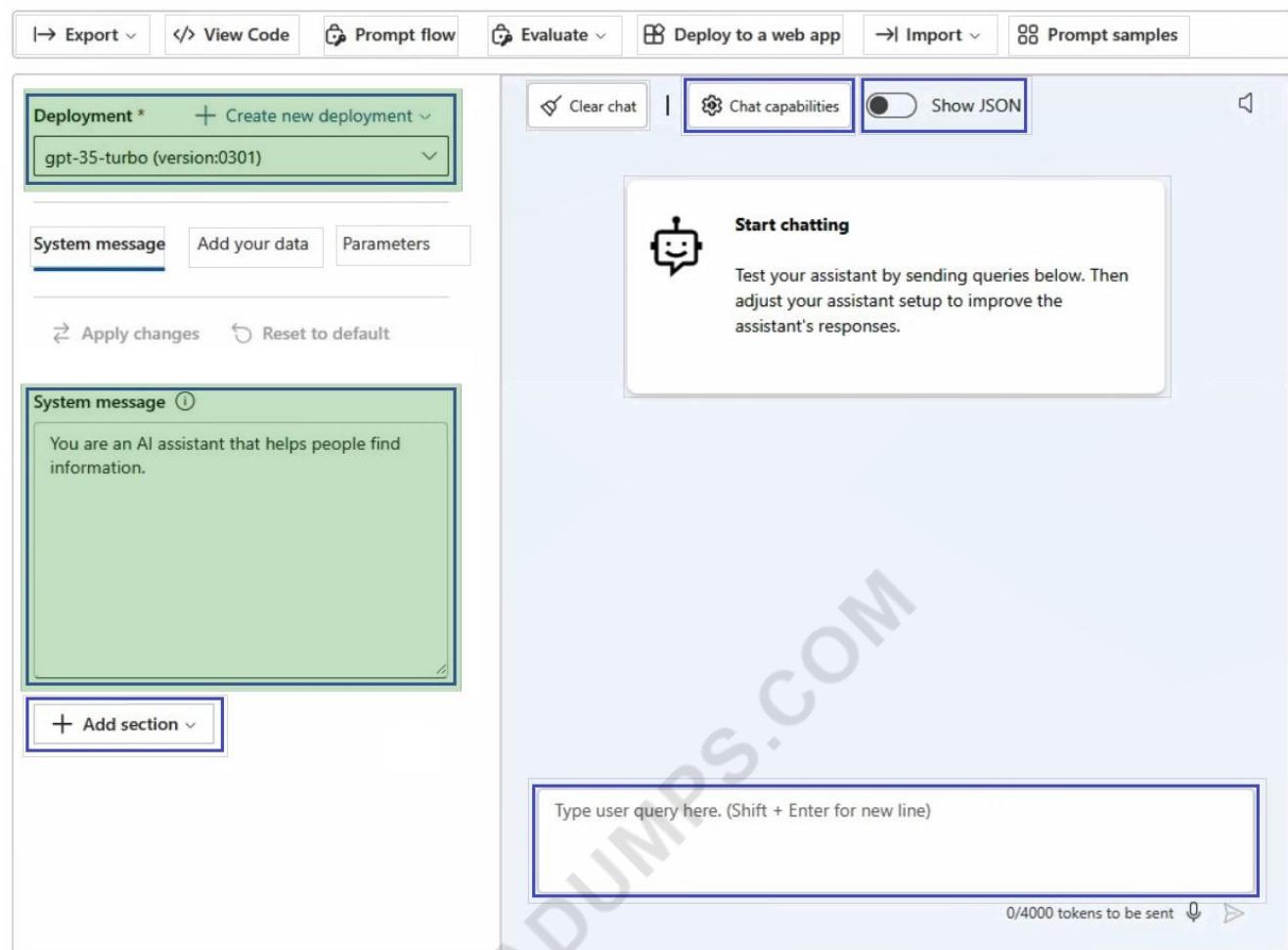
Which two settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area**Chat playground**

The screenshot shows the 'Chat playground' interface. At the top, there is a toolbar with various icons: Export, View Code, Prompt flow, Evaluate, Deploy to a web app, Import, and Prompt samples. Below the toolbar, the 'Deployment' section is set to 'gpt-35-turbo (version:0301)'. There are buttons for Clear chat, Chat capabilities, and Show JSON. On the left, there's a 'System message' section containing the text: 'You are an AI assistant that helps people find information.' A button '+ Add section' is also present. On the right, there is a large input field for user queries with the placeholder 'Type user query here. (Shift + Enter for new line)'. Below the input field, it says '0/4000 tokens to be sent'.

Answer:

Answer Area**Chat playground****Explanation:**

To ensure that the chatbot generates text in concise formal business language while also reducing the cost of running the language model and maintaining the size of the chatbot history window, you should adjust the following settings:

1. Model Selection

Select a less costly model like gpt-35-turbo instead of GPT-4. GPT-3.5 is less expensive to run while still offering high-quality results.

2. System Message

Modify the system message to specify that the chatbot should generate concise, formal, and business-like responses. For example, you can set the system message to:

"You are an AI assistant that generates concise formal business language." These changes will guide the model to produce the desired output while keeping operational costs lower by using a less expensive model. Additionally, keeping the size of the chatbot history window unaltered maintains the context of the conversation.

NO.277 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

NO.278 Hotspot Question

You plan use the Azure Custom Vision service to deploy a custom model that will recognize objects in an image and return the coordinates of the objects.

You need to build a proof of concept (PoC) that will create the custom model and load images to train.

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

```
...
trainer = CustomVisionTrainingClient(ENDPOINT, credentials)
predictor = 
    
    
    
obj_detection_domain = next(domain for domain in trainer.get_domains() if domain.type ==
project = trainer.create_project(str(uuid.uuid4()), domain_id=obj_detection_domain.id)
package_tag = trainer.create_tag(project.id, "package")
...




```

Answer:

Answer Area

```
...
trainer = CustomVisionTrainingClient(ENDPOINT, credentials)
predictor = 
    
    
    
obj_detection_domain = next(domain for domain in trainer.get_domains() if domain.type ==
project = trainer.create_project(str(uuid.uuid4()), domain_id=obj_detection_domain.id)
package_tag = trainer.create_tag(project.id, "package")
...




```

Explanation:

Box 1: CustomVisionTrainingClient

trainingApi:

The CustomVisionTrainingClient is used to train and manage custom vision models, making it the correct choice for creating and training an object detection model. The other options (e.g., CustomVisionPredictionClient) are used for making predictions, not training.

Box 2: "ObjectDetection"

Domain Type:

Since the goal is to recognize objects in an image and return their coordinates, ObjectDetection is the correct domain type. This allows the model to detect and locate multiple objects in an image, rather than just classifying the entire image into a category.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/quickstarts/object-detection>

NO.279 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:

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.

Transparency: AI systems should be understandable.

Reliability and safety: AI systems should perform reliably and safely.

Reference:

<https://docs.microsoft.com/en-us/learn/parts/prepare-for-ai-engineering/>

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

NO.280 Drag and Drop Question

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.

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

Answer:

Values	Answer Area
Phraselist	var phraselistId = await client.Features. <input type="checkbox"/> AddPhraseListAsync
Phrases	(appId, versionId, new <input type="checkbox"/> PhraselistCreateObject
SavePhraselistAsync	{
UploadPhraseListAsync	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>

NO.281 Hotspot Question

You are building an app that will answer customer calls about the status of an order. The app will query a database for the order details and provide the customers with a spoken response.

You need to identify which Azure AI service APIs to use. The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

Answer Area

Convert customer calls into text queries:

SpeechRecognizer
SpeechSynthesizer
TranslationRecognizer
VoiceProfileClient

Provide customers with the order details:

SpeechRecognizer
SpeechSynthesizer
TranslationRecognizer
VoiceProfileClient

Answer:

Answer Area

Convert customer calls into text queries:

SpeechRecognizer
SpeechSynthesizer
TranslationRecognizer
VoiceProfileClient

Provide customers with the order details:

SpeechRecognizer
SpeechSynthesizer
TranslationRecognizer
VoiceProfileClient

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/get-started-speech-to-text?tabs=windows%2Cterminal&pivots=programming-language-csharp>

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/how-to-speech-synthesis?tabs=browserjs%2Cterminal&pivots=programming-language-csharp>

NO.282 You have an Azure subscription that contains an Azure AI Service resource named CSAccount1 and a virtual network named VNet1. CSAccount1 is connected to VNet1.

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

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

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

NOTE: Each correct answer is worth one point.

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

Answer: AE

Explanation:

In VNet1, enable a service endpoint for CSAccount1. This will allow you to connect your virtual network to your Azure AI Service resource securely over the Azure backbone network.

In CSAccount1, modify the virtual network settings. This will allow you to configure virtual network rules that specify which subnets can access your Azure AI Service resource.

NO.283 Hotspot Question

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 AI 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.

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:

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

NO.284 You have an Azure subscription that contains an AI enrichment pipeline in Azure AI 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 scheduled indexing.
- B. Create a text-based indexer by using the REST API.
- C. Configure field mappings by using the REST API.
- D. From the Azure portal, configure parallel indexing.

Answer: D

NO.285 Case Study 2 - Contoso, Ltd.

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

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.

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

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. QnADialogResponseOptions.CardNoMatchText**
- B. Qna MakerOptions-ScoreThreshold**
- C. Qna MakerOptions StrickFilters**
- D. QnaMakerOptions.RankerType**

Answer: B

Explanation:

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".

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/confidence-score#set-threshold>

NO.286 Drag and Drop Question

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

NOTE: Each correct selection is worth one point.

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

Answer:

Features	Answer Area
Key phrase extraction	Identify code names for internal product development: Custom named entity recognition (NER)
Language detection	Identify messages that include credit card numbers: Personally Identifiable Information (PII) detection
Named Entity Recognition (NER)	
Sentiment analysis	

Explanation:

<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.

NO.287 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 user cancels the transaction.

Which type of dialog should you use?

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

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.

- 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.

NO.288 Hotspot Question

You have an Azure subscription that contains an Azure AI Language resource named Resource1. You run the following cURL command, and then play the Output.mp3 file.

```

curl --location --request POST "https://eastus.tts.speech.microsoft.com/cognitiveservices/v1" ^
--header "Ocp-Apim-Subscription-Key: 3795c4011f714f5aa66469e573109e4f" ^
--header "Content-Type: application/ssml+xml" ^
--header "X-Microsoft-OutputFormat: audio-16khz-128kbitrate-mono-mp3" ^
--header "User-Agent: curl" ^
--data-raw "<speak version='1.0' xml:lang='en-US'>
<voice xml:gender='Female' name='en-US-JennyNeural>
    Welcome to the Azure Text-to-Speech demonstration.
</voice>
<voice xml:gender='Male' name='en-GB-RyanNeural'>
    This service allows you to convert text into natural-sounding speech.
</voice>
<voice xml:gender='Male' name='en-US-ChristopherNeural'>
    <mstts:express-as style='advertisement_upbeat' styleddegree='2'>
        It's easy to integrate, customizable, and supports multiple languages and voices.
    </mstts:express-as>
</voice>

</speak>" --output output.mp3

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
 NOTE: Each correct selection is worth point.

Answer Area

Statements	Yes	No
You hear three sentences in different voices.	<input type="radio"/>	<input type="radio"/>
You hear three sentences in different accents.	<input type="radio"/>	<input type="radio"/>
You hear three sentences expressed in a neutral tone.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
You hear three sentences in different voices.	<input checked="" type="radio"/>	<input type="radio"/>
You hear three sentences in different accents.	<input type="radio"/>	<input checked="" type="radio"/>
You hear three sentences expressed in a neutral tone.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Box 1: Yes

There are three voice elements, each with a different voice.

Note: Use voice elements

At least one voice element must be specified within each SSML speak element. This element determines the voice that's used for text to speech.

You can include multiple voice elements in a single SSML document. Each voice element can specify a different voice. You can also use the same voice multiple times with different settings, such as when you change the silence duration between sentences.

Box 2: No

There are two accents only: two voices using en-US, and one voice using en-GB.

Note: Adjust speaking languages

By default, multilingual voices can autodetect the language of the input text and speak in the language of the default locale of the input text without using SSML. Optionally, you can use the <lang xml:lang> element to adjust the speaking language for these voices to set the preferred accent such as en-GB for British English.

Box 3: No

The third voice is configured with style advertisement_upbeat and styledegree set to 2.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/speech-synthesis-markup-voice>

NO.289 Hotspot Question

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements

Yes	No
<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 an image file from the local file system.

Answer:

Answer Area

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

NO.290 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named resource1. You need to add a custom category to resource1.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
curl -X PUT "<endpoint>/contentsafety/text/categories/learning-advice?api-version=2024-02-15-preview" \
-H "Ocp-Apim-Subscription-Key: <api_key>" \
-H "Content-Type: application/json" \
-d "{\n    \"categoryName\": \"learning-advice\", \n    \"text\": \"text prompts about learning advice while preparing for an exam.\",\n    \"definition\": \"\", \n    \"prompt\": \"\", \n    \"blocklistName\": \"\", \n    \"outputType\": \"\", \n    \"sampleBlobUrl\": \"https://<your-azure-storage-url>/container/learning-advice.jsonl\" \n}..."
```

Answer:

Answer Area

```
curl -X PUT "<endpoint>/contentsafety/text/categories/learning-advice?api-version=2024-02-15-preview" \
-H "Ocp-Apim-Subscription-Key: <api_key>" \
-H "Content-Type: application/json" \
-d "{
  \"categoryName\": \"learning-advice\",
  \"definition\": \"text prompts about learning advice while preparing for an exam.\",
  \"prompt\": \"https://<your-azure-storage-url>/container/learning-advice.jsonl\",
  \"text\": \"\",
  \"blocklistName\": \"\",
  \"outputType\": \"\",
  \"sampleBlobUrl\": \"\"
}"..
```

Explanation:**"prompt"**

The "prompt" field is used to specify the actual input text that should be evaluated for content safety. In this case, it represents the text prompts about learning advice that will be processed for moderation.

"sampleBlobUrl"

This field points to the Azure Blob Storage URL where a JSONL file is stored. The JSONL file contains structured moderation rules or additional content data for analysis.

NO.291 Case Study 2 - Contoso, Ltd.**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

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:

- ICountryJ-[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.

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

Hotspot Question

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.

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

Generate Answer

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/role-based-access-control>

NO.292 Drag and Drop Question

You have an Azure subscription.

You are building a chatbot that will use an Azure OpenAI model.

You need to deploy the model.

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
Apply for access to Azure OpenAI.	1. <input type="text"/>
Deploy the DALL-E model.	2. <input type="text"/>
Deploy the GPT model.	3. <input type="text"/>  
Provision Azure API Management.	
Provision an Azure OpenAI resource.	
Deploy the embeddings model.	

Answer:

Actions	Answer Area
Deploy the DALL-E model.	1. <input type="text"/>  
Provision Azure API Management.	2. <input type="text"/>  
Deploy the embeddings model.	3. <input type="text"/>  

Explanation:

Apply for access to Azure OpenAI - Before you can use Azure OpenAI models, you need to apply for access as it is a gated service.

Provision an Azure OpenAI resource - After getting access, you need to create (provision) an Azure OpenAI resource in your subscription.

Deploy the GPT model - Once the resource is set up, you can deploy the GPT model, which will power your chatbot.

NO.293 Hotspot Question

You are building an app by using the Azure AI 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. = "fr"
        AddTargetLanguage
        SpeechRecognitionLanguage
        SpeechSynthesisLanguage
        TargetLanguages
        VoiceName

speech_translation_config. ("de")
        AddTargetLanguage
        SpeechRecognitionLanguage
        SpeechSynthesisLanguage
        TargetLanguages
        VoiceName
```

Answer:

Answer Area

```
var speechTranslationConfig =
    SpeechTranslationConfig.FromSubscription(speechKey, speechRegion);
    speechTranslationConfig. = "fr"
        AddTargetLanguage
SpeechRecognitionLanguage
        SpeechSynthesisLanguage
        TargetLanguages
        VoiceName

speech_translation_config. ("de")
AddTargetLanguage
        SpeechRecognitionLanguage
        SpeechSynthesisLanguage
        TargetLanguages
        VoiceName
```

NO.294 Hotspot Question

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

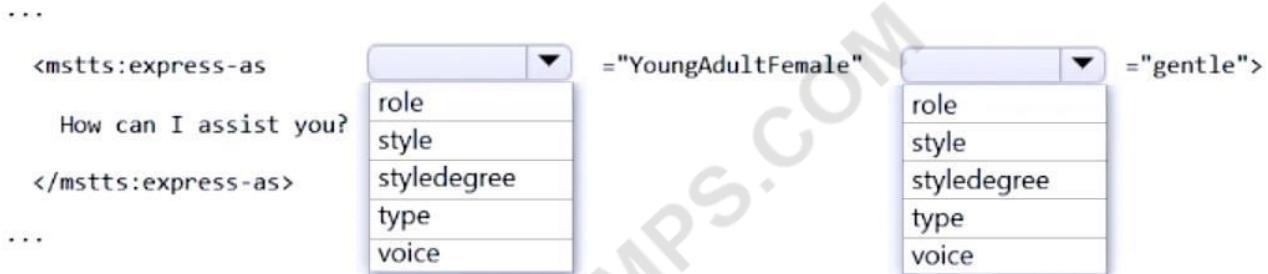
You need to create an SSML file for the app. The solution must ensure that the voice profile meets the following requirements:

- 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.

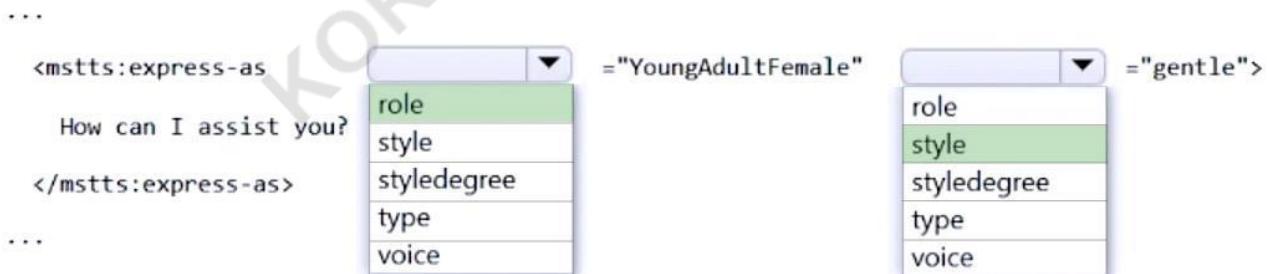
NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Answer Area



NO.295 Which database transaction property ensures that individual transactions are executed only once and either succeed in their entirety or roll back?

- A. consistency
- B. isolation
- C. atomicity
- D. durability

Answer: C

Explanation:

An atomic transaction is an indivisible and irreducible series of database operations such that either all occurs, or nothing occurs. A guarantee of atomicity prevents updates to the database occurring only partially, which can cause greater problems than rejecting the whole series outright. As a consequence, the transaction cannot be observed to be in progress by another database client.

NO.296 Hotspot Question

You have a chatbot that uses the Azure AI Language custom question answering service. You need to test the chatbot. The solution must ensure that the chatbot responds only when an answer has a confidence score of at least 95 percent. How should you complete the cURL statement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
curl -X POST -H "Ocp-Apim-Subscription-Key: $LANGUAGE_KEY" -H "Content-Type: application/json" -d '{
    "question": "How much energy does my phone have left?",

    "confidenceScore": "0.95",
    "confidenceScoreThreshold": null,
    "context": null,
    "rankerType": null
}' '$LANGUAGE_ENDPOINT.api.cognitive.microsoft.com/language/:query-knowledgebases?'
```

confidenceScore	: "0.95",
confidenceScoreThreshold	
context	
rankerType	

deploymentName	=ChatBot-project&api-version=2021-10-01
kbid	
knowledgebases	
projectName	

Answer:**Answer Area**

```
curl -X POST -H "Ocp-Apim-Subscription-Key: $LANGUAGE_KEY" -H "Content-Type: application/json" -d '{
    "question": "How much energy does my phone have left?",

    "confidenceScore": "0.95",
    "confidenceScoreThreshold": "0.95",
    "context": null,
    "rankerType": null
}' '$LANGUAGE_ENDPOINT.api.cognitive.microsoft.com/language/:query-knowledgebases?'
```

confidenceScore	: "0.95",
confidenceScoreThreshold	0.95
context	
rankerType	

deploymentName	=ChatBot-project&api-version=2021-10-01
kbid	
knowledgebases	
projectName	

Explanation:

Reference:

<https://learn.microsoft.com/en-sg/answers/questions/1404996/pva-chabot-with-azure-language-studio>

NO.297 You plan to build an agent that will combine and process multiple files uploaded by users. You are evaluating whether to use the Azure AI Agent Service to develop the agent. What is the maximum size of all the files that can be uploaded to the service?

- A.** 1 GB
- B.** 10 GB
- C.** 100 GB
- D.** 1 TB

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/agents/quotas-limits>

NO.298 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.** Azure AI Language service

- B.** Azure AI Content Safety
- C.** Azure AI Vision
- D.** Azure AI Document Intelligence

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>

NO.299 You have a product support manual.

You need to build a product support chatbot based on the manual. The solution must minimize development effort and costs.

What should you use?

- A.** Azure AI Phi-3-medium with fine-tuning
- B.** Azure AI Document intelligence
- C.** Azure OpenAI GPT-4 with grounding data that uses Azure AI Search
- D.** Azure AI Language Custom question answering

Answer: C

NO.300 Hotspot Question

You have an Azure AI 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.

NO.301 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

Varying fields for each entity in a JSON document is an example of

relational data.
semi-structured data.
structured data.
unstructured data.

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

Varying fields for each entity in a JSON document is an example of

relational data.
semi-structured data.
structured data.
unstructured data.



NO.302 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

NO.303 Hotspot Question

You have an app that uses an Azure AI Content Safety blocklist.

You need to remove an entry from the blocklist. The solution must minimize the impact on existing entries on the list.

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 blocklistName = "TestBlocklist"
```

```
var removeBlockItemIds = new List<string> { 1 };
```

```
var removeResult = blocklistClient.
```

▼	(blocklistName, new
AddOrUpdateBlocklistItems	
CreateOrUpdateTextBlocklist	
DeleteTextBlocklist	
RemoveBlocklistItems	

▼	x removeB
AddOrUpdateTextBlocklistItemsOptions	
BlocklistClient	
ContentSafetyClient	
RemoveTextBlocklistItemsOptions	

```
if (removeResult != null && removeResult.Status == 204)
{
    Console.WriteLine("\nBlockItem removed: {0}.", removeBlockItemId);
}
```

Answer:

Answer Area

```

var blocklistName = "TestBlocklist"
var removeBlockItemIds = new List<string> { 1 };
var removeResult = blocklistClient.  (blocklistName, new
    AddOrUpdateBlocklistItems
    CreateOrUpdateTextBlocklist
    DeleteTextBlocklist
    RemoveBlocklistItems 




}

if (removeResult != null && removeResult.Status == 204)
{
    Console.WriteLine("\nBlockItem removed: {0}.", removeBlockItemId);
}

```

NO.304 Case Study 2 - Contoso, Ltd.**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

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:

- ICountryJ-[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.

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

Hotspot Question

You are developing the knowledgebase by using Azure AI 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.

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 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>

NO.305 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:

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.

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>

NO.306 You are building an Azure Webblob 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:

```
var createOp = await client.Knowledgebase.CreateAsync(createKbDto);
```

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/quickstarts/quickstart-sdk?tabs=v1%2Cversion-1&pivots=programming-language-csharp#create-a-knowledge-base>

NO.307 You are examining the Azure AI Language service 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 Azure AI Language service API is used to analyze the text?

- A. Sentiment Analysis
- B. Named Entity Recognition
- C. Entity Linking
- 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>

NO.308 You have an app named App1 that uses a custom Azure AI Document Intelligence model to recognize contract documents.

You need to ensure that the model supports an additional contract format. The solution must minimize development effort.

What should you do?

- A. Lower the confidence score threshold of App1.
- B. Create a new training set and add the additional contract format to the new training set. Create and train a new custom model.
- C. Add the additional contract format to the existing training set. Retrain the model.
- D. Lower the accuracy threshold of App1.

Answer: C

NO.309 You are building a chatbot.

You need to configure the chatbot to query a knowledge base.

Which dialog class should you use?

- A. QnAMakerDialog
- B. AdaptiveDialog
- C. SkillDialog
- D. ComponentDialog

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.

NO.310 Hotspot Question

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

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

You open Document Intelligence Studio and create a new project.

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

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

NOTE: Each correct selection is worth one point.

Answer Area

Upload to:

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

Model type:

Custom neural
Custom template
Identity document (ID)

Answer:

Answer Area

Upload to:

An Azure Cosmos DB account

An Azure Files share

An Azure Storage account

Model type:

Custom neural

Custom template

Identity document (ID)

Explanation:

Upload To - Azure Storage Account: Azure Document Intelligence (formerly known as Azure AI Document Intelligence) works well with images and documents stored in an Azure Storage account, which provides direct integration for processing files. This is the most compatible and streamlined choice for handling scanned images in this scenario.

Model Type - Custom Neural: Since the surveys are handwritten and lack a consistent layout, the Custom neural model is the best choice. This model type is designed for flexibility and works effectively with unstructured or semi-structured documents. It can process handwritten text and extract information even when the layout varies across documents, which minimizes the need for custom development and complex template creation.

NO.311 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:

Create the Azure resources required to support your bot

Your will need to create an Azure application registration to give your bot an identity it can use to access resources, and a bot application service to host the bot.

Register an Azure app

You can create the application registration by using the `az ad app create` Azure command-line interface (CLI) command, specifying a display name and password for your app identity. This command registers the app and returns its registration information, including a unique application ID that you will need in the following step.

Create a bot application service

Your bot requires a Bot Channels Registration resource, along with associated application service and application service plan. To create these resources, you can use the Azure resource deployment templates provided with the Bot Framework SDK template you used to create your bot. Just run the `az deployment group create` command, referencing the deployment template and specifying your bot application registration's ID (from the `az ad app create` command output) and the password you specified.

<https://docs.microsoft.com/en-gb/learn/modules/design-bot-conversation-flow/5-deploy-bot>

NO.312 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>

NO.313 What are two benefits of platform as a service (PaaS) relational database offerings in Azure, such as Azure SQL Database? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A.** reduced administrative effort for managing the server infrastructure
- B.** complete control over backup and restore processes
- C.** in-database machine learning services S3
- D.** access to the latest features

Answer: AD

NO.314 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 AI Search service.

During the past 12 months, query volume steadily increased.

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

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

Solution: You add replicas.

Does this meet the goal?

A. Yes

B. No

Answer: A

Explanation:

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

Reference:

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

NO.315 Case Study 2 - Contoso, Ltd.

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

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:

- ICountryJ-[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.

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

You are developing the knowledgebase by using Azure AI 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>

NO.316 You have a library that contains 1,000 video files.

You need to perform sentiment analysis on the videos by using an Azure AI Content Understanding

project. The solution must minimize development effort.

Which type of template should you use for the project?

- A. Video shot analysis**
- B. Media asset management**
- C. Advertising**

Answer: A

Explanation:

To analyze sentiment in videos using Azure AI Content Understanding, you would use the Template: Video shot analysis template and potentially the Template: Media asset management template. The prebuilt-videoAnalyzer can also be used to extract insights, including sentiment, from videos.

1. Template: Video shot analysis:

This template is specifically designed for analyzing videos and extracting structured information for each shot, including transcripts and potentially sentiment analysis of the spoken words.

2. Template: Media asset management:

This template helps extract structured information from various video content, which can also include sentiment analysis.

3. prebuilt-videoAnalyzer:

This is a pre-built analyzer within Azure AI Content Understanding that can be used to extract information from videos, including sentiment. This template packages clips into both Markdown and JSON, making it easier to integrate with other tools.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/content-understanding/concepts/analyzer-templates?tabs=video>

NO.317 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. (Choose two.) NOTE: Each correct selection is worth one point.

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

Answer: BC

Explanation:

Fairness: AI systems should treat all people fairly.

Reliability and safety: AI systems should perform reliably and safely.

Privacy and security: AI systems should be secure and respect privacy.

Inclusiveness: AI systems should empower everyone and engage people.

Transparency: AI systems should be understandable.

Accountability: People should be accountable for AI systems.

Reference:

<https://www.microsoft.com/en-us/ai/responsible-ai?activetab=pivot1%3aprimaryr6>

<https://docs.microsoft.com/en-us/learn/modules/get-started-ai-fundamentals/8-understand-responsible-ai>

NO.318 Hotspot Question

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

GET	"https://*.cognitiveservices.azure.com/vision/v3.2/analyze?visualFeatures=&details={string}&language={string}"
PATCH	description
POST	imageType
	objects
	tags

Answer:

Answer Area

GET	"https://*.cognitiveservices.azure.com/vision/v3.2/analyze?visualFeatures=&details={string}&language={string}"
PATCH	description
POST	imageType
	objects
	tags

NO.319 You have data saved in the following format.

```
FirstName,LastName,Age,LeisureHobby,SportsHobby
John,Smith,23,Reading,Basketball
Ben,Smith,21,Guitar,Curling
```

Which format was used?

- A. CSV
- B. JSON
- C. HTML
- D. YAML

Answer: A

NO.320 Hotspot Question

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You build a chatbot that will use AI1 to provide generative answers to specific questions.

You need to ensure that the responses are more creative and less deterministic.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
response = openai.ChatCompletion.create(  
    engine="dgw-aoai-gpt35",  
    messages = [{"role":  
        "assistant"  
        "function"  
        "system"  
        "user"  
    }, {"content":""}],  
    temperature=1,  
    Frequency_penalty  
    Presence_penalty  
    temperature  
    token_selection_biasses  
    max_tokens=800,  
    stop=None)
```

Answer:

Answer Area

```
response = openai.ChatCompletion.create(
    engine="dgw-aoai-gpt35",
    messages = [{"role": "assistant", "content": ""}],
    temperature=1,
    Frequency_penalty,
    Presence_penalty,
    temperature,
    token_selection_biasses
    max_tokens=800,
    stop=None)
```

NO.321 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

The	ALTER JOIN SET WHERE
-----	--------------------------------------

clause can be used in Data Manipulation Language (DML) statements to specify the criteria that rows must match.

Answer:**Answer Area**

The	ALTER JOIN SET WHERE
-----	--------------------------------------

clause can be used in Data Manipulation Language (DML) statements to specify the criteria that rows must match.

NO.322 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named CS1.

You need to use the SDK to call CS1 to identify requests that contain harmful content.

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 client = new
    (new Uri(endpoint), new AzureKeyCredential(key));
AnalyzeTextOptions
BlocklistClient
ContentSafetyClient
TextCategoriesAnalysis

var request = new
    ("what is the weather forecast for Seattle");
AddOrUpdateTextBlocklistItemsOptions
AnalyzeTextOptions
TextBlockListMatch
TextCategoriesAnalysis

Response<AnalyzeTextResult> response;
response = client.AnalyzeText(request);

```

Answer:**Answer Area**

```

var client = new
    (new Uri(endpoint), new AzureKeyCredential(key));
AnalyzeTextOptions
BlocklistClient
ContentSafetyClient
TextCategoriesAnalysis

var request = new
    ("what is the weather forecast for Seattle");
AddOrUpdateTextBlocklistItemsOptions
AnalyzeTextOptions
TextBlockListMatch
TextCategoriesAnalysis

Response<AnalyzeTextResult> response;
response = client.AnalyzeText(request);

```

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/how-to/use-blocklist?tabs=windows%2Crest>

NO.323 Drag and Drop Question

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
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.

Answer Area

Answer Area
In the code for the bot, create a new trace activity.
In the code for the bot, send a trace activity.
Run the bot app on a local host.

Answer:**Actions**

Use the input prompt object to send a trace activity.
Deploy the bot to Azure.

Answer Area

In the code for the bot, create a new trace activity.
In the code for the bot, send a trace activity.
Run the bot app on a local host.

Explanation:

<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.

NO.324 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

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

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

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

Answer:

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 i

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>

NO.325 Hotspot Question

You are building a call handling system that will perform the following actions:

- Accept incoming voicemails in French.
- Convert voicemails from French to English.

Which Azure AI Speech SDK class should you use for each action? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Accept incoming voicemails in French:

AudioConfig
SpeechConfig
SpeechTranslationConfig
TextTranslationClient

Convert voicemails from French to English:

SpeechSynthesizer
TextTranslationClient
TranslationRecognitionResult
TranslationRecognizer

Answer:**Answer Area**

Accept incoming voicemails in French:

AudioConfig
SpeechConfig
SpeechTranslationConfig
TextTranslationClient

Convert voicemails from French to English:

SpeechSynthesizer
TextTranslationClient
TranslationRecognitionResult
TranslationRecognizer

Explanation:**Box 1: AudioConfig**

If you want to specify the audio input device, then you need to create an `AudioConfig` class instance and provide the `audioConfig` parameter when initializing `TranslationRecognizer`.

If you want to provide an audio file instead of using a microphone, you still need to provide an `audioConfig` parameter.

Box 2: TranslationRecognizer*** TranslationRecognizer**

Initialize a translation recognizer

After you created a `SpeechTranslationConfig` instance, the next step is to initialize `TranslationRecognizer`. When you initialize `TranslationRecognizer`, you need to pass it your `speechTranslationConfig` instance. The configuration object provides the credentials that the Speech service requires to validate your request.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/how-to-translate-speech>

NO.326 Hotspot Question

You are developing an application that will use the Azure AI 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.

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="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.

Explanation:

Box 1: No

The code generates description and tags. See line 3,4.

Box 2: Yes

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

Box 3: Yes

File.OpenRead reads a local file.

Reference:

<https://docs.microsoft.com/en-us/dotnet/api/system.io.file.openread?view=net-6.0>

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

NO.327 You are building a social media messaging app.

You need to identify in real time the language used in messages.

Which SDK package should you install?

A.

Azure.AI.Translation.Text

B.

Microsoft.CognitiveServices.Speech

C.

Azure.AI.Translation.Document

D.

Azure.AI.Translation.Speech

Answer: A

Explanation:

<https://learn.microsoft.com/en-us/dotnet/api/azure.ai.translation.text.detectedlanguage>

<https://learn.microsoft.com/en-us/azure/ai-services/speech-service/language-identification>

<https://learn.microsoft.com/en-us/azure/ai-services/translator/text-translation/quickstart/client-library-sdk>

NO.328 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.

(Choose two.)

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>

NO.329 You are developing a system that will monitor temperature data from a data stream. The system must generate an alert in response to atypical values. The solution must minimize development effort.

What should you include in the solution?

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

Answer: B

Explanation:

Use case of Stream Analytics

Query: Alert to trigger a business workflow

Let's make our query more detailed. For every type of sensor, we want to monitor average temperature per 30-second window and display results only if the average temperature is above 100 degrees.

<https://learn.microsoft.com/en-us/azure/stream-analytics/stream-analytics-get-started-with-azure-stream-analytics-to-process-data-from-iot-devices>

NO.330 Hotspot Question

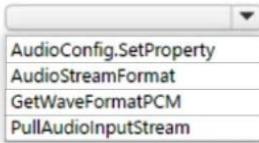
You are developing a streaming Azure AI Speech to Text solution that will use the Azure AI Speech SDK and MP3 encoding.

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

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

NOTE: Each correct selection is worth one point.

Answer Area

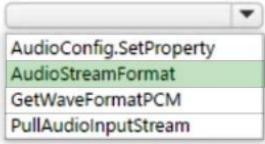
```
audio_format = speechsdk.audio.
(stream_compressed_stream_format=speechsdk.AudioStreamContainerFormat.MP3)

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

```

NO.331 Case Study 1 - Wide World Importers**Overview****Existing Environment**

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"  
}
```

Drag and Drop Question

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. (Choose four.)

Actions**Answer Area**

Index the video by using the 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 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.

Answer Area

Upload the video to blob storage.

Index the video by using the Video Indexer API.

Extract the transcript from the Video Indexer API.

Translate the transcript by using the Translator API.

Upload the video to file storage.

Explanation:

Scenario: All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and all 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.

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 Azure AI 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>

NO.332 Hotspot Question

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to develop a console app that will answer user questions.

You need to call AI1 and output the results to the console.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
OpenAIclient client =
    new OpenAIclient(new Uri(endpoint), new AzureKeyCredential(key));
Response<Completions> response =
    client.GetCompletions(deploymentName, "What is Microsoft Azure?");

Console.WriteLine(
    (response.Value.Choices[0].Text);
    (response.Value.Id);
    (response.Value.PromptFilterResults);
```

Answer:**Answer Area**

```
OpenAIclient client =
    new OpenAIclient(new Uri(endpoint), new AzureKeyCredential(key));
Response<Completions> response =
    client.GetCompletions(deploymentName, "What is Microsoft Azure?");

Console.WriteLine(
    (response.Value.Choices[0].Text);
    (response.Value.Id);
    (response.Value.PromptFilterResults);
```

NO.333 You need to store event log data that is semi-structured and received as the logs occur. What should you use?

- A. Azure Table storage
- B. Azure Queue storage
- C. Azure Files

Answer: A

NO.334 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.

NO.335 You have an Azure AI 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:

Knowledge store definition

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

A connection string to Azure Storage

Projections that determine whether the knowledge store consists of tables, objects or files.

The projections element is an array. You can create multiple sets of table-object-file combinations within one knowledge store.

```
"knowledgeStore": {
```

```
  "storageConnectionString": "<YOUR-AZURE-STORAGE-ACCOUNT-CONNECTION-STRING>",
```

```
  "projections": [
```

```
    {
```

```
      "tables": [ ],
```

```
      "objects": [ ],
```

```
      "files": [ ]
```

```
    }
```

```
}
```

The type of projection you specify in this structure determines the type of storage used by knowledge store.

Objects - project JSON document into Blob storage. The physical representation of an object is a hierarchical JSON structure that represents an enriched document.

Tables - project enriched content into Table Storage. Define a table projection when you need tabular

reporting structures for inputs to analytical tools or export as data frames to other data stores. You can specify multiple tables within the same projection group to get a subset or cross section of enriched documents. Within the same projection group, table relationships are preserved so that you can work with all of them.

Projected content is not aggregated or normalized. The following screenshot shows a table, sorted by key phrase, with the parent document indicated in the adjacent column. In contrast with data ingestion during indexing, there is no linguistic analysis or aggregation of content. Plural forms and differences in casing are considered unique instances.

Content.metadata_storage_name	Content.KeyPhrases
Cognitive Services and Content Intelligence.pptx	Computer Vision
10-K-FY16.html	computing device
10-K-FY16.html	computing devices
MSFT_FY17_10K.docx	computing devices
10-K-FY16.html	Computing segment
Cognitive Services and Bots (spanish).pdf	confianza

NO.336 Which database transaction property ensures that transactional changes to a database are preserved during unexpected operating system restarts?

- A. durability
- B. atomicity
- C. consistency
- D. isolation

Answer: A

NO.337 With which visual feature you can generate appropriate caption for images using computer vision service?

- A. Tags.
- B. Description.
- C. Category.

Answer: B

Explanation:

To generate a caption, include the Description visual feature in your analysis.

NO.338 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 <product>?

The chatbot fails to respond to the following question: How much does <product> 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

NO.339 Hotspot Question

You are building an app that will provide users with definitions of common AI terms.

You create the following C# code.

```
...
OpenAIclient client =
    new OpenAIclient(new Uri(endpoint), new AzureKeyCredential(key));
ChatCompletionsOptions options = new ChatCompletionsOptions()
{
    Messages =
    {
        new ChatMessage(ChatRole.System, "You are a helpful assistant."),
        new ChatMessage(ChatRole.User, "What is an LLM?")
    }
};

ChatCompletions response = client.GetChatCompletions(
    deploymentName, options);
ChatMessage completion = response.Choices[0].Message;
Console.WriteLine($"Chatbot: {completion.Content}");
...
```

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

NOTE: Each correct selection is worth point.

Answer Area

Statements	Yes	No
The response will contain an explanation of large language models (LLMs) that has a high degree of certainty.	<input type="radio"/>	<input type="radio"/>
Changing "What is an LLM?" to "What is an LLM in the context of AI models?" will produce the intended response.	<input type="radio"/>	<input type="radio"/>
Changing "You are a helpful assistant." to "You must answer only within the context of AI language models." will give a higher likelihood of producing the intended	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
The response will contain an explanation of large language models (LLMs) that has a high degree of certainty.	<input type="radio"/>	<input checked="" type="radio"/>
Changing "What is an LLM?" to "What is an LLM in the context of AI models?" will produce the intended response.	<input checked="" type="radio"/>	<input type="radio"/>
Changing "You are a helpful assistant." to "You must answer only within the context of AI language models." will give a higher likelihood of producing the intended	<input type="radio"/>	<input checked="" type="radio"/>

NO.340 You have an Azure subscription that contains an Azure OpenAI resource named AI1 and a user named User1.

You need to ensure that User1 can perform the following actions in Azure OpenAI Studio:

- Identify resource endpoints.
- View models that are available for deployment.
- Generate text and images by using the deployed models.

The solution must follow the principle of least privilege.

Which role should you assign to User1?

- A.** Cognitive Services OpenAI User
- B.** Cognitive Services Contributor
- C.** Contributor
- D.** Cognitive Services OpenAI Contributor

Answer: A

Explanation:

The Cognitive Services OpenAI User role provides read-only access to the Azure OpenAI resource, allowing User1 to:

Identify resource endpoints

View available models for deployment

Generate text and images using deployed models

This role follows the principle of least privilege by granting only the permissions needed to view and interact with deployed models, without allowing management or configuration changes.

NO.341 You are developing an application that will use Azure AI Search for internal documents.

You need to implement document-level filtering for Azure AI 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:

Your documents must include a field specifying which groups have access. This information becomes the filter criteria against which documents are selected or rejected from the result set returned to

the issuer.

D: A query request targets the documents collection of a single index on a search service.

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

Reference:

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

NO.342 Drag and Drop Question

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, build the container and specify the output directory.

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.

From the Language Understanding portal, retrain the model.

NO.343 You are building an Azure AI Language Understanding solution.

You discover that many intents have similar utterances containing airport names or airport codes.

You need to minimize the number of utterances used to train the model.

Which type of custom entity should you use?

- A. Pattern.any
- B. machine-learning
- C. regular expression

D. list**Answer: A**

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/luis/concepts/patterns-features#patternany-entity>

NO.344 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource named CS1.

You need to call CS1 to identify whether a user request contains hateful language.

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

```
curl --location --request POST 'https://cs1.cognitiveservices.azure.com/
--header 'Ocp-Apim-Subscription-Key: <your_subscription_key>' \
--header 'Content-Type: application/json' \
--data-raw '{
    "text": "What is the weather forecast for Seattle",
    "categories": ["Hate"]
    "blocklistNames": [
        "string"
    ],
    "haltonBlocklistHit": true,
    "outputType": "FourSeverityLevels"
}'
```

completions/	completions
contentsafety/	embeddings
healthinsights/	text:analyze
language/	text/blocklists

Answer:**Answer Area**

```
curl --location --request POST 'https://cs1.cognitiveservices.azure.com/
--header 'Ocp-Apim-Subscription-Key: <your_subscription_key>' \
--header 'Content-Type: application/json' \
--data-raw '{
    "text": "What is the weather forecast for Seattle",
    "categories": ["Hate"]
    "blocklistNames": [
        "string"
    ],
    "haltonBlocklistHit": true,
    "outputType": "FourSeverityLevels"
}'
```

completions/	completions
contentsafety/	embeddings
healthinsights/	text:analyze
language/	text/blocklists

NO.345 Drag and Drop Question

You have an app that manages feedback.

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

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

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

Actions

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

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

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

Answer Area

- Deploy a Docker container to an Azure container instance.

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

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/sentiment-opinion-mining/how-to/use-containers>

NO.346 Hotspot Question

You are building an app that will automatically translate speech from English to French, German, and Spanish by using Azure AI service.

You need to define the output languages and configure the Azure AI Speech service.

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

NOTE: Each correct selection is worth one point.

Answer Area

```

speech_key, service_region = os.environ['SPEECH__SERVICE__KEY'], os.environ['SPEECH__SERVICE__REGION']

languages = [
    [en-GB]
    {en,fr,de,es}
    [fr,de,es]
    {"French","Spanish","German" }

def translate_speech_to_text():

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

    for lang in languages:
        translation_config.add_target_language(lang)

        for lang in languages:
            translation_config.add_target_language(lang)

    recognizer = speechsdk.translation.
    ...
    IntentRecognizer
    SpeakerRecognizer
    SpeechSynthesizer
    TranslationRecognizer
    (translation_config=translation_config)

```

Answer:**Answer Area**

```

speech_key, service_region = os.environ['SPEECH__SERVICE__KEY'], os.environ['SPEECH__SERVICE__REGION']

languages = [
    [en-GB]
    {en,fr,de,es}
    [fr,de,es]
    {"French","Spanish","German" }

def translate_speech_to_text():

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

    for lang in languages:
        translation_config.add_target_language(lang)

        for lang in languages:
            translation_config.add_target_language(lang)

    recognizer = speechsdk.translation.
    ...
    IntentRecognizer
    SpeakerRecognizer
    SpeechSynthesizer
    TranslationRecognizer
    (translation_config=translation_config)

```

NO.347 You are building an app that uses a Language Understanding model to analyze text files.

You need to ensure that the app can detect the following entities:

- Temperatures
- Currency values
- Email addresses
- Telephone numbers

The solution must minimize development effort.

Which model capability should you use?

- A.** list entities
- B.** learned entities

- C. utterances
- D. regular expression components
- E. pre-built entity components

Answer: E

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/conversational-language-understanding/prebuilt-component-reference>

NO.348 You are building a multilingual chatbot.

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

Which two Text Analytics APIs should you use? Each correct answer presents part of the solution.
(Choose two.) 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/how-tos/text-analytics-how-to-language-detection>

NO.349 Hotspot Question

You are building an agent by using the Azure AI Agent Service.

You need to ensure that the agent can access publicly accessible data that was released during the past 90 days.

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 connectionId = "bingConnectionId";

AgentsClient agentClient = projectClient.GetAgentsClient();

Var connectionList = new ToolConnectionList

{

    ConnectionList = { new ToolConnection(connectionId) }

};

var grounding = new
     (connectionList);

    AzureAIResource
    BingGroundingToolDefinition
    ToolResources

Response<Agent> agentResponse = await agentClient.CreateAgentAsync(
    model: "gpt-4o",
    name: "my-assistant",
    instructions: "You are a helpful assistant.",
     new List<ToolDefinition> { grounding });

    metadata;
    ToolResources;
    tools;

Agent agent = agentResponse.Value;

```

Answer:**Answer Area**

```

var connectionId = "bingConnectionId";

AgentsClient agentClient = projectClient.GetAgentsClient();

Var connectionList = new ToolConnectionList

{

    ConnectionList = { new ToolConnection(connectionId) }

};

var grounding = new
     (connectionList);

    AzureAIResource
    
    ToolResources

Response<Agent> agentResponse = await agentClient.CreateAgentAsync(
    model: "gpt-4o",
    name: "my-assistant",
    instructions: "You are a helpful assistant.",
     new List<ToolDefinition> { grounding });

    metadata;
    ToolResources;
    tools;

Agent agent = agentResponse.Value;

```

NO.350 Hotspot Question

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
Normalization involves eliminating relationships between database tables.	<input type="radio"/>	<input type="radio"/>
Normalizing a database reduces data redundancy.	<input type="radio"/>	<input type="radio"/>
Normalization improves data integrity.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
Normalization involves eliminating relationships between database tables.	<input type="radio"/>	<input checked="" type="radio"/>
Normalizing a database reduces data redundancy.	<input checked="" type="radio"/>	<input type="radio"/>
Normalization improves data integrity.	<input checked="" type="radio"/>	<input type="radio"/>

NO.351 You have receipts that are accessible from a URL.

You need to extract data from the receipts by using Azure AI Document Intelligence 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:

To analyze receipts from a URL, use the StartRecognizeReceiptsFromUri method Example code:

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

Reference:

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

NO.352 Hotspot Question

You develop an application that uses the Face API.

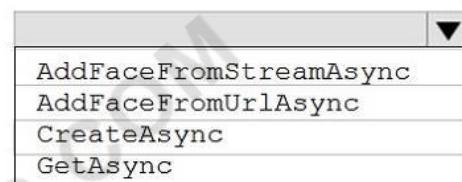
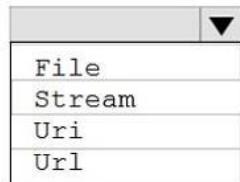
You need to add multiple images to a person group.

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

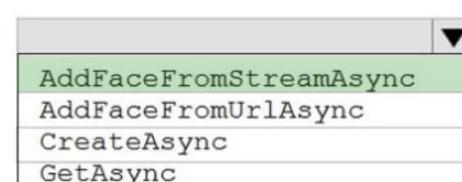
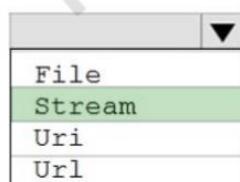
NOTE: Each correct selection is worth one point.

Answer Area

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

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

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

**Explanation:****Box 1: Stream**The `File.OpenRead(String)` method opens an existing file for reading.

Example: Open the stream and read it back.

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

Box 2: AddFaceFromStreamAsync**Example:**

File.OpenRead() returns a Stream object.

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

Reference:

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

NO.353 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:

<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.

NO.354 Case Study 2 - Contoso, Ltd.

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

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:

- ICountryJ-[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.

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

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. Orchestrator**
- B. chatdown**
- C. Language Understanding**
- D. Microsoft Translator**

Answer: D

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>

NO.355 Hotspot Question

You are building an agent by using the Semantic Kernel. The agent will use a custom plugin.

You need to ensure that the agent meets the following requirements:

- The agent must use function calling.
- All functions that match the instructions must be triggered.
- All required parameters in the function must be requested by the agent if the user fails to provide them.

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

```
agentKernel.   

new ChatCompletionAgent(){  

    Name = "<agent name>",  

    Instructions = "<agent instructions>",  

    Kernel = agentKernel,  

    Arguments = new KernelArguments(  

        new OpenAIPromptExecutionSettings() {  

            FunctionChoiceBehavior =   

                FunctionChoiceBehaviour.Auto  

                FunctionChoiceBehaviour.None  

                FunctionChoiceBehaviour.Required  

            })  

    );
```

Answer:

Answer Area

```

agentKernel.  ("Prompt instructions");

CreateFunctionFromMethod
CreateFunctionFromPrompt 
CreatePluginFromFunctions

new ChatCompletionAgent(){

    Name = "<agent name>",

    Instructions = "<agent instructions>",

    Kernel = agentKernel,

    Arguments = new KernelArguments{

        new OpenAIPromptExecutionSettings() {

            FunctionChoiceBehavior =
        }
    };
}
 FunctionChoiceBehaviour.Auto
 FunctionChoiceBehaviour.None
FunctionChoiceBehaviour.Required

```

NO.356 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 AI 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:

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

NO.357 What should you use to build a Microsoft Power BI paginated report?

- A.** Power BI Report Builder
- B.** Charculator
- C.** Power BI Desktop
- D.** the Power BI service

Answer: A

NO.358 You are developing an app that will use the Speech and Language APIs.

You need to provision resources for the app. The solution must ensure that each service is accessed by using a single endpoint and credential.

Which type of resource should you create?

- A.** Azure AI Language
- B.** Azure AI Speech
- C.** Azure AI Services
- D.** Azure AI Content Safety

Answer: C

NO.359 Hotspot Question

You have an Azure AI Speech service resource named Resource1.

You call Resource1 by running the following Python code.

```
def synthesize_speech(input):
    speech_config = speechsdk.SpeechConfig(subscription=os.environ.get('YourSpeechKey'),
region=os.environ.get('YourSpeechRegion'))
    audio_config = speechsdk.audio.AudioOutputConfig(filename="path/to/file.wav")
    speech_synthesizer = speechsdk.SpeechSynthesizer(speech_config=speech_config, audio_config=audio_config)
    speech_synthesizer.speak_text_async(input)
```

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

NOTE: Each correct selection is worth point.

Answer Area

Statements	Yes	No
The function will fail if there is an existing file named File.wav.	<input type="radio"/>	<input type="radio"/>
The function will sample File.wav to use as a synthesized voice.	<input type="radio"/>	<input type="radio"/>
The function will generate an audio file based on the input text.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
The function will fail if there is an existing file named File.wav.	<input type="radio"/>	<input checked="" type="radio"/>
The function will sample File.wav to use as a synthesized voice.	<input type="radio"/>	<input checked="" type="radio"/>
The function will generate an audio file based on the input text.	<input checked="" type="radio"/>	<input type="radio"/>

NO.360 Which scenario is an example of a streaming workload?

- A.** sending transactions daily from point of sale (POS) devices
- B.** sending cloud infrastructure metadata every 30 minutes
- C.** sending transactions that are older than a month to an archive
- D.** sending telemetry data from edge devices

Answer: D

NO.361 You have a collection of 50,000 scanned documents that contain text.

You plan to make the text available through Azure AI 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 pipeline
- D.** a new Cognitive Services resource that uses the S0 pricing tier

Answer: D

Explanation:

Azure Computer Vision uses text recognition to extract and recognize text information from images. Azure Cognitive Service for Language extracts text information from unstructured documents by using text analytics capabilities like Named Entity Recognition (NER), key phrase extraction, and full-text search.

With only the Computer Vision there is no way to analyze text. Cognitive Services allows you to do both.

NO.362 Hotspot Question

You are building an app that will perform translations by using the Azure AI Translator service.

You need to ensure that the app will translate user-inputted text.

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

```
while (true)
{
    Console.WriteLine("Enter text to translate or 'exit':");
    string input = Console.ReadLine();
    if (input.ToLower() == "exit") break;
    Response<IReadOnlyList<TranslatedTextItem>> translationResponse =
        await client.TranslateAsync(
            Translate(targetLanguage, input)
            .ConfigureAwait(false);
            TranslateAsync(targetLanguage, input)
            TranslationRecognizer());
    IReadOnlyList<TranslatedTextItem> translations = translationResponse.Value;
    TranslatedTextItem translation = translations[0];
    string sourceLanguage = translation?.DetectedLanguage?.Language;
    Console.WriteLine($"'{input}' translated from {sourceLanguage} to {translation?.Translations[0].To} as '{translation?.Translations[0].Text}'");
}
```

translations.Value');
translations[0].text');
{Translations.Text');
{translation?.Translations?[0]?.Text');

Answer:

Answer Area

```

while (true)
{
    Console.WriteLine("Enter text to translate or 'exit':");
    string input = Console.ReadLine();
    if (input.ToLower() == "exit") break;
    Response<IReadOnlyList<TranslatedTextItem>> translationResponse =
        await client.TranslateAsync .ConfigureAwait(false);
    
    
    
    IReadOnlyList<TranslatedTextItem> translations = translationResponse.Value;
    TranslatedTextItem translation = translations[0];
    string sourceLanguage = translation?.DetectedLanguage?.Language;
    Console.WriteLine($"{input} translated from {sourceLanguage} to {translation?.Translations[0].To} as '{translation?.Translations[0].Text}'");
}

```

translations.Value".');
translations[0].text".');
{Translations.Text}"');
{translation?.Translations?[0]?.Text}"');

NO.363 Hotspot Question

You have an Azure subscription that is linked to a Microsoft Entra tenant. The subscription ID is x1xx11x1-x111-xxxx-xxxx-x1111xxx11x1 and the tenant ID is 1y1y1yyy-1y1y-y1y1-yy11-y1y1y11111y1.

The subscription contains an Azure OpenAI resource named OpenAI1 that has a primary API key of 1111a111a11a111aaa11a1a1a11a1aa. OpenAI1 has a deployment named embeddings1 that uses the text-embedding-ada-002 model.

You need to query OpenAI1 and retrieve embeddings for text input.

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

```

Uri endpoint = new Uri("https://openai1.openai.azure.com");
AzureKeyCredential credentials = new AzureKeyCredential("x1xx11x1-x111-xxxx-xxxx-x1111xxx11x1");
OpenAIClient openAIClient = new (endpoint, credentials);
EmbeddingsOptions embeddingOptions = new EmbeddingsOptions(input_text_string);
var returnValue = openAIClient.GetEmbeddings("1111a111a11a111aaa11a1a1a11a1aa", embeddingOptions);
foreach (float item in returnValue.Value.Data[0].Embedding)
{
    Console.WriteLine(item);
}

```

x1xx11x1-x111-xxxx-xxxx-x1111xxx11x1
1111a111a11a111aaa11a1a1a11a1aa
1y1y1yyy-1y1y-y1y1-yy11-y1y1y11111y1

embeddings1
OpenAI1
text-embedding-ada-002

Answer:

Answer Area

```

Uri endpoint = new Uri("https://openai1.openai.azure.com");
AzureKeyCredential credentials = new AzureKeyCredential("x1xx11x1-x111-xxxx-xxxx-x1111xxx11x1");
OpenAIClient openAIclient = new (endpoint, credentials);
EmbeddingsOptions embeddingOptions = new EmbeddingsOptions(input_text_string);
var returnValue = openAIclient.GetEmbeddings("embeddings1", embeddingOptions);
foreach (float item in returnValue.Value.Data[0].Embedding)
{
    Console.WriteLine(item);
}

```

The code snippet shows a C# program using the Azure OpenAI service. It creates a Uri for the endpoint, sets up AzureKeyCredential, initializes an OpenAIClient, and defines an EmbeddingsOptions object. The GetEmbeddings method is called with the identifier "embeddings1". The returned value is a float array representing the embedding of the input text.

NO.364 Hotspot Question

You are building a language learning solution.

You need to recommend which Azure services can be used to perform the following tasks:

- Analyze lesson plans submitted by teachers and extract key fields, such as lesson times and required texts.
- Analyze learning content and provide students with pictures that represent commonly used words or phrases in the text.

The solution must minimize development effort.

Which Azure service should you recommend for each task? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Analyze lesson plans:

Azure Cognitive Search
Azure AI Custom Vision
Azure AI Document Intelligence
Immersive Reader

Analyze learning content:

Azure Cognitive Search
Azure AI Custom Vision
Azure AI Document Intelligence
Immersive Reader

Answer:

Answer Area

Analyze lesson plans:

Azure Cognitive Search
Azure AI Custom Vision
Azure AI Document Intelligence
Immersive Reader

Analyze learning content:

Azure Cognitive Search
Azure AI Custom Vision
Azure AI Document Intelligence
Immersive Reader

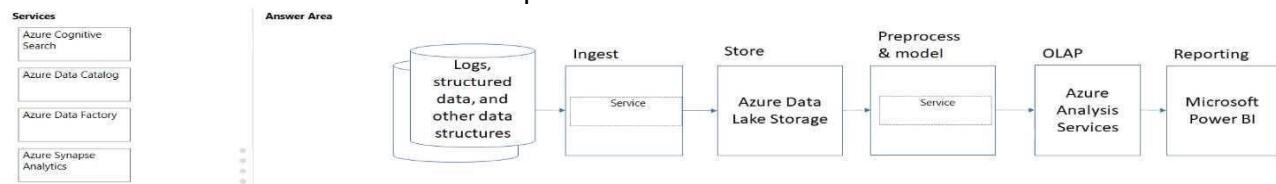
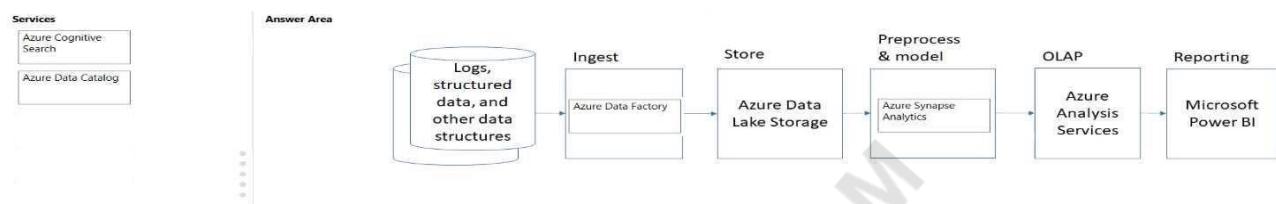
Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/immersive-reader/overview#display-pictures-for-common-words>

NO.365 Drag and Drop Question

Match the Azure services to the appropriate locations in the architecture. To answer, drag the appropriate service from the column on the left to its location on the right. Each service may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

**Answer:****NO.366** 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 Azure AI Document Intelligence API endpoint?

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

Answer: A

Explanation:

<https://learn.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/faq?view=form-recog-3.0.0#does-form-recognizer-store-my-data>

For all features, Azure AI Document Intelligence temporarily stores data and results in Azure storage in the same region as the request. Your data is then deleted within 24 hours from the time an analyze request was submitted.

NO.367 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. an Azure AI Language service container for ta1

Answer: C

Explanation:

<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.

NO.368 Hotspot Question

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to develop a console app that will answer user questions.

You need to call AI1 and output the results to the console.

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

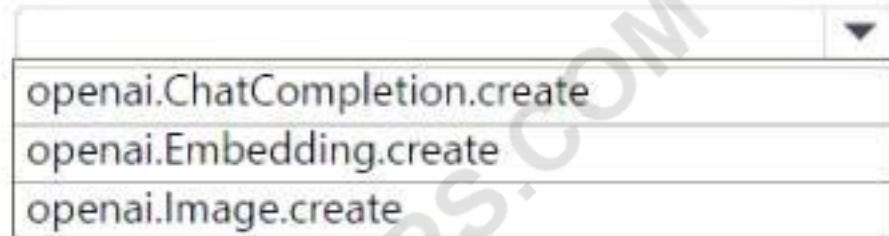
NOTE: Each correct selection is worth one point.

Answer Area

```
openai.api_key = key
```

```
openai.api_base = endpoint
```

```
response =
```



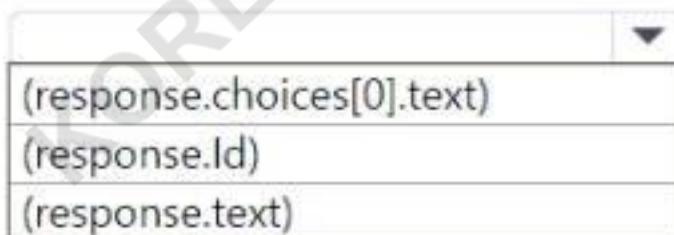
- openai.ChatCompletion.create
- openai.Embedding.create
- openai.Image.create

```
    engine=deployment_name,
```

```
    prompt="What is Microsoft Azure?"
```

```
)
```

```
print
```



- (response.choices[0].text)
- (response.id)
- (response.text)

Answer:

Answer Area

```

openai.api_key = key
openai.api_base = endpoint
response =
    openai.ChatCompletion.create
    openai.Embedding.create
    openai.Image.create
engine=deployment_name,
prompt="What is Microsoft Azure?"
)

```

```
print
```

(response.choices[0].text)
(response.id)
(response.text)

NO.369 Hotspot Question

You are developing a text processing solution.
You have the function shown below.

```

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

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

```

For the second argument, you call the function and specify the following string.
Our tour of Paris included a visit to the Eiffel Tower
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

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

Answer:**Answer Area**

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

Explanation:

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

NO.370 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

A JSON document is an example of



graph data.
relational data.
semi-structured data.
unstructured data.

Answer:**Answer Area**

A JSON document is an example of



graph data.
relational data.
semi-structured data.
unstructured data.

NO.371 You are building an app that will process scanned expense claims and extract and label the following data:

- Merchant information
- Time of transaction
- Date of transaction
- Taxes paid
- Total cost

You need to recommend an Azure AI Document Intelligence model for the app. The solution must minimize development effort.

What should you use?

- A. the prebuilt Read model
- B. a custom template model
- C. a custom neural model
- D. the prebuilt receipt model

Answer: D

NO.372 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:

<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

NO.373 Drag and Drop Question

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:**Options**

Food

General

Image classification

Logo

Answer Area

Project type: Object detection

Domain: General (compact)

Explanation:

<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.

NO.374 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 AI Search service.

During the past 12 months, query volume steadily increased.

You discover that some search query requests to the Azure AI 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 Azure AI 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>

NO.375 You are developing an app that will use the Decision and Language APIs.

You need to provision resources for the app. The solution must ensure that each service is accessed by using a single endpoint and credential.

Which type of resource should you create?

A. Language

B. Speech

C. Azure AI Services

D. Content Moderator

Answer: C

NO.376 You are designing a solution that will answer questions about human resources (HR) policies stored in the PDF format.

You need to ensure that the identical answer to a specific question is returned every time. The solution must minimize development effort.

Which service should you include in the solution?

A. Azure OpenAI

B. Azure AI Document Intelligence

C. Azure Machine Learning

D. Azure AI Language

Answer: A

Explanation:

You can create a Custom FAQs PDF Solution Powered by Azure OpenAI with Citations from Grounded Data.

Business Problem

Imagine an organization that frequently deals with FAQs, legal documents, or reports. They want an automated system that can:

Generate answers from questions using the information found in existing PDF documents.

Ensure citations from those documents are included in the responses.

Output a structured PDF with the Q&A and citations formatted in a professional and readable way.

Solution Overview

By leveraging Azure OpenAI on your data and Azure Cognitive Search, we can ground the OpenAI GPT model with custom documents like PDFs. When queried, the model retrieves the most relevant responses from the documents and includes citations such as document titles or page numbers and create a question-and-answer format JSON file. The system then generates a structured, professional-looking PDF with bold questions, clear answers, and citations.

Reference:

<https://www.linkedin.com/pulse/creating-custom-faqs-pdf-solution-powered-azure-openai-saqlain-tahir-x9gse>

NO.377 Hotspot Question

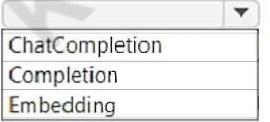
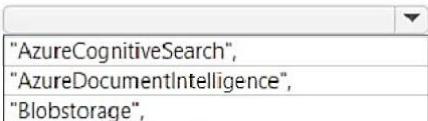
You have a chatbot that uses Azure OpenAI to generate responses.

You need to upload company data by using Chat playground. The solution must ensure that the chatbot uses the data to answer user questions.

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

```
completion = openai..create(
    messages=[{"role": "user", "content": "What are the differences between Azure Machine Learning and Azure AI services?"}],
    deployment_id=os.environ.get("AOAIDeploymentId"),
    dataSources=[
        {
            "type": ,
            "parameters": {
                "endpoint": os.environ.get("SearchEndpoint"),
                "key": os.environ.get("SearchKey"),
                "indexName": os.environ.get("SearchIndex"),
            }
        }
    ]
)
```

Answer:

Answer Area

```

completion = openai.ChatCompletion.create(
    messages=[{"role": "user", "content": "What are the differences between Azure Machine Learning and Azure AI services?"}],
    deployment_id=os.environ.get("AOAIDeploymentId"),
    dataSources=[
        {
            "type": "AzureCognitiveSearch",
            "AzureDocumentIntelligence",
            "Blobstorage",
        }
    ],
    parameters: {
        "endpoint": os.environ.get("SearchEndpoint"),
        "key": os.environ.get("SearchKey"),
        "indexName": os.environ.get("SearchIndex"),
    },
    ...
)

```

NO.378 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 AI 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

NO.379 You need to recommend a non-relational data store that is optimized for storing and retrieving text files, videos, audio streams, and virtual disk images. The data store must store data, some metadata, and a unique ID for each file. Which type of data store should you recommend?

- A.** columnar
- B.** key/value
- C.** document
- D.** object

Answer: D

NO.380 Hotspot Question

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.

Answer Area

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

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

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

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

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

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

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

    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); }

```

NO.381 Hotspot Question

You have an Azure AI Speech service resource named Resource1.

You call Resource1 by running the following C# code.

```

static async Task SynthesizeAudioAsync(dynamic input)
{
    var speechConfig = SpeechConfig.FromSubscription("YourSpeechKey", "YourSpeechRegion");
    using var audioConfig = AudioConfig.FromWavFileOutput("path/to/file.wav");
    using var speechSynthesizer = new SpeechSynthesizer(speechConfig, audioConfig);
    await speechSynthesizer.SpeakTextAsync(input);
}

```

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

NOTE: Each correct selection is worth point.

Answer Area

Statements

The function will fail if there is an existing file named File.wav.

The function will sample File.wav to use as a synthesized voice.

The function will generate an audio file based on the input text.

Answer:

Answer Area

Statements

The function will fail if there is an existing file named File.wav.

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

The function will sample File.wav to use as a synthesized voice.

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

The function will generate an audio file based on the input text.

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

Explanation:

Box 1: No

Create an audioConfig using AudioConfig.FromWavFileOutput, based on which, create a synthesizer. Then call speak method many times with shorter sentences, the generated audio for multi speaks will be saved in a single audio file.

Box 2: No

File.wav is the output file.

Box 3: Yes

Reference:

[https://learn.microsoft.com/en-](https://learn.microsoft.com/en-us/dotnet/api/microsoft.cognitiveservices.speech.audio.audioconfig.fromwavfileoutput)

<https://github.com/Azure-Samples/Cognitive-Speech-TTS/wiki/How-to-synthesize-a-large-file-into-audio-files>

NO.382 Drag and Drop Question

You have an Azure subscription that contains an Azure AI Search instance named AISearch1.

AISearch1 contains an index that includes a vector.

You need to perform the following actions:

- Deploy a new agent by using the Azure AI Agent Service.
- Connect the AISearch1 index to the new agent.
- Validate the integration of the index and the agent.

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

Actions

- Download the files generated by the code interpreter tool.
- Create an agent and enable the code interpreter tool.
- Ask the agent questions about the data in the AISearch1 index.
- Create an agent and enable the Azure AI Search tool.
- Configure the Azure AI Search tool.
- Create an Azure AI Client and retrieve the connection ID of the Azure AI Search resource.

Answer Area

- 1
- 2
- 3
- 4

Answer:

Actions	Answer Area
Download the files generated by the code interpreter tool.	1 Configure the Azure AI Search tool.
Create an agent and enable the Azure AI Search tool.	2 Create an agent and enable the code interpreter tool. 3 Create an Azure AI Client and retrieve the connection ID of the Azure AI Search resource. 4 Ask the agent questions about the data in the AISeach1 index.

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/agents/how-to/tools/azure-ai-search>

NO.383 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 Conversational Language Understanding.

Solution: You create a new entity for the domain.

Does this meet the goal?

A. Yes

B. No

Answer: A

Explanation:

The model should have an Entity "Location" that will help in finding the contacts.

Reference:

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

NO.384 Drag and Drop Question

You train an Azure AI Custom Vision object detection model to identify a company's products by using the Retail domain.

You plan to deploy the model as part of a mobile 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.

Actions

Change the model domain.

Retrain the model.

Test the model.

Export the model.

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

Export the model.

Answer Area

Change the model domain.

Retrain the model.

Test the model.

**Explanation:**

From the top of the page, select Train to retrain using the new domain.

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

NO.385 Drag and Drop Question

You have an Azure AI 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.

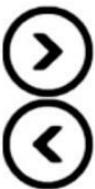
Actions

- 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.

**Answer Area**

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



- Create a new classification model.

Explanation:

The model must be retrained after changing the domain to compact.

<https://learn.microsoft.com/en-us/azure/cognitive-services/Custom-Vision-Service/export-your-model>

NO.386 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 AI 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>

NO.387 You need to develop a solution to provide data to executives. The solution must provide an interactive graphical interface, depict various key performance indicators, and support data exploration by using drill down. What should you use in Microsoft Power BI?

- A.** a report
- B.** Microsoft Power Apps
- C.** a view
- D.** a dataflow

Answer: C

NO.388 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.

NO.389 You are processing text by using the Azure AI Language service.

You need to identify music band names in the text. The solution must minimize development effort.

What should you use?

- A.** entity linking
- B.** key phrase extraction
- C.** custom named entity recognition (NER)
- D.** conversational language understanding (CLU)

Answer: C

Explanation:

Named Entity Recognition (NER) is a fundamental task in Natural Language Processing (NLP) that involves locating and classifying named entities mentioned in unstructured text into predefined

categories such as names, organizations, locations, dates, quantities, percentages, and monetary values. NER serves as a foundational component in various NLP applications, including information extraction, question answering, machine translation, and sentiment analysis.

Reference:

<https://encord.com/blog/named-entity-recognition/>

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

NO.390 You are building a language model by using a Language Understanding service.

You create a new Language Understanding 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:

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

NO.391 Hotspot Question

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

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

```

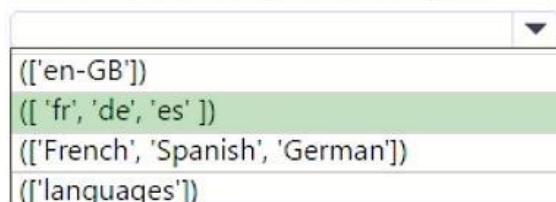
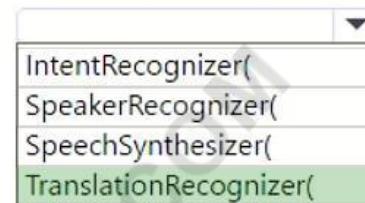
speech_key = os.environ['SPEECH_SUBSCRIPTION_KEY']
service_region = os.environ['SPEECH_SERVICE_REGION']
def translate_speech():
    translation_config = speechsdk.translation.SpeechTranslationConfig(
        subscription=speech_key, region=service_region)
    translation_config.speech_recognition_language = "en-GB"
    languages = [
        ('en-GB'),
        ('fr', 'de', 'es'),
        ('French', 'Spanish', 'German'),
        ('languages')]
    for language in languages: translation_config.add_target_language(language)
    audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
    recognizer = speechsdk.translation.
    [
        IntentRecognizer(),
        SpeakerRecognizer(),
        SpeechSynthesizer(),
        TranslationRecognizer()
    ]
    translation_config=translation_config, audio_config=audio_config)
    result = recognizer.recognize_once()
    if result.reason == speechsdk.ResultReason.TranslatedSpeech:
        append_to_transcript_file(result.text, "en")
        for language in result.translations:
            append_to_transcript_file(result.translations[language], language)

```

Answer:

Answer Area

```

speech_key = os.environ['SPEECH_SUBSCRIPTION_KEY']
service_region = os.environ['SPEECH_SERVICE_REGION']
def translate_speech():
    translation_config = speechsdk.translation.SpeechTranslationConfig(
        subscription=speech_key, region=service_region)
    translation_config.speech_recognition_language = "en-GB"
    languages =
        
    for language in languages: translation_config.add_target_language(language)
    audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
    recognizer = speechsdk.translation.
        
    translation_config=translation_config, audio_config=audio_config)
    result = recognizer.recognize_once()
    if result.reason == speechsdk.ResultReason.TranslatedSpeech:
        append_to_transcript_file(result.text, "en")
        for language in result.translations:
            append_to_transcript_file(result.translations[language], language)

```

NO.392 You have an Azure IoT hub that receives series 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.** Azure AI Document Intelligence
- C.** Azure Machine teaming
- D.** Anomaly Detector

Answer: A

NO.393 Hotspot Question

You are building a custom vision model that will be deployed as part of an iOS app. You have images of cats and dogs. Each image contains either a cat or a dog.

You need to use the Azure AI Custom Vision service to detect whether the image is of a cat or a dog. How should you configure the project in the Azure AI Custom Vision portal? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Project Types:

Classification
Object Detection

Classification Types:

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

Answer:

Answer Area

Project Types:

Classification
Object Detection

Classification Types:

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

Explanation:

Project Type: Classification

Classification Type: Multiclass (Single tag per image)

Since each image contains either a cat or a dog, you need to classify each image into a single category. The Classification project type is appropriate because it assigns labels to entire images rather than detecting multiple objects within an image.

For Classification Type, selecting Multiclass (Single tag per image) ensures that each image is assigned only one label: either "cat" or "dog." Multilabel (Multiple tags per image) would be used if an image could contain both a cat and a dog, which is not the case here.

NO.394 HOTSPOT

You have an Azure subscription that contains an Azure AI Content Understanding resource named cu1.

You need to create a custom analyzer that will analyze documents.

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

```
curl -i -X "https://cu1.services.ai.azure.com/" /analyzers/myInvoice?api-version=2024-12-01-preview"
      GET
      PATCH
      POST
      PUT
-H "Ocp-Apim-Subscription-Key: {key}" -H "Content-Type: application/json" -d @reqbody.json
```

Answer:

Answer Area

```
curl -i -X "https://cu1.services.ai.azure.com/" /analyzers/myInvoice?api-version=2024-12-01-preview"
      GET
      PATCH
      POST
      PUT
-H "Ocp-Apim-Subscription-Key: {key}" -H "Content-Type: application/json" -d @reqbody.json
```

NO.395 You plan to perform predictive maintenance.

You collect IoT sensor data from 100 industrial machines for a year. Each machine has 50 different sensors that generate data at one-minute intervals. In total, you have 5,000 time series datasets. You need to identify unusual values in each time series to help predict machinery failures. Which Azure service should you use?

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

Answer: D

Explanation:

Azure AI Anomaly Detector is an AI service that enables you to monitor and detect anomalies in your time series data with little machine learning knowledge, either batch validation or real-time inference.

NO.396 Which Azure Storage service implements the key/value model?

- A. Azure Files
- B. Azure Blob
- C. Azure Table
- D. Azure Queue

Answer: C

NO.397 Your company needs to implement a relational database in Azure. The solution must minimize ongoing maintenance.

Which Azure service should you use?

- A. SQL Server on Azure Virtual Machines
- B. Azure SOL Database
- C. Azure HDInsight
- D. Azure Cosmos DB

Answer: B

NO.398 Which statement is an example of Data Manipulation Language (DML)?

- A.** Revoke
- B.** UPDATE
- C.** DROP
- D.** CREATE

Answer: B

NO.399 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.** Custom Translator
- B.** Azure AI Vision Image Analysis
- C.** Azure Custom Vision image classification
- D.** Azure AI Content Safety Analyze image

Answer: C

Explanation:

Azure Custom Vision can be used to tag images in different languages, but the process involves training your custom model with labeled data in the target language(s). While the core Custom Vision service handles image classification and object detection, the language of the tags is determined by the language you use when labeling your training data.

Custom Vision's Core Function:

Azure Custom Vision focuses on building and deploying computer vision models for image classification and object detection. It allows you to train a model on your own dataset, so the model can recognize specific objects or scenarios in your images.

Reference:

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

NO.400 You develop a Conversational Azure AI 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 or irrelevant requests.

What should you do?

- A.** Enable active learning.
- B.** Add examples to the custom intents.
- C.** Add examples to the None intent
- D.** Add entities.

Answer: C

Explanation:

<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.

NO.401 You manage an application that stores data in a shared folder on a Windows server. You need to move the shared folder to Azure Storage. Which type of Azure Storage should you use?

- A. table
- B. queue
- C. file
- D. blob

Answer: C

NO.402 Hotspot Question

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.

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: [Attachment
      ConversationUpdate
      Typing] [Delay=3000]

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!

```



Explanation:

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

NO.403 You have an Azure subscription and 10,000 ASCII files.

You need to identify files that contain specific phrases. The solution must use cosine similarity. Which Azure OpenAI model should you use?

- A. text-embedding-ada-002
- B. GPT-4
- C. GPT-35 Turbo
- D. GPT-4-32k

Answer: A

Explanation:

To identify files that contain specific phrases using cosine similarity, you should use an embedding model. The text-embedding-ada-002 model is specifically designed to create embeddings (numerical representations of text) that can be used for similarity searches, such as cosine similarity. This model

is efficient and optimized for tasks that involve finding similarity between pieces of text, making it ideal for identifying files with specific phrases.

NO.404 You build a Conversational Azure AI 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

NO.405 You have an app named App1 that uses an Azure AI 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 Services (AKS)
- B. a Kubernetes cluster hosted in an Azure Stack Hub integrated system
- C. Azure Container instances
- D. the Docker Engine

Answer: C

Explanation:

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

NO.406 You have used Azure Machine Learning to train a machine learning model. How can you use the model in your application?

- A.** Use Azure Machine Learning to publish the model as a web service.
- B.** Export the model as a cognitive service.
- C.** You must build your application using the Azure Machine Learning designer.

Answer: A

Explanation:

You can use Azure Machine Learning to publish a trained model as a web service and consume it from applications through its REST interface.

NO.407 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 subscription that contains an Azure OpenAI resource named AI1 and an Azure AI Content Safety resource named CS1.

You build a chatbot that uses AI1 to provide generative answers to specific questions and CS1 to check input and output for objectionable content.

You need to optimize the content filter configurations by running tests on sample questions.

Solution: From Content Safety Studio, you use the Protected material detection feature to run the tests.

Does this meet the requirement?

- A.** Yes
- B.** No

Answer: B

Explanation:

No, using the Protected material detection feature from Content Safety Studio does not meet the requirement. The Protected material detection feature is designed to identify and manage sensitive or protected material, but it is not specifically intended for optimizing content filter configurations for objectionable content in a chatbot.

To optimize the content filter configurations for objectionable content, you should use the Moderate text content feature in Content Safety Studio. This feature is specifically designed to help you run tests on sample questions and check for objectionable content, ensuring that your chatbot's input and output adhere to safety and quality standards.

NO.408 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 Conversational Language Understanding.

Solution: You create a new intent for location.

Does this meet the goal?

A. Yes

B. No

Answer: B

Explanation:

The model should have an Entity "Location" that will help in finding the contacts.

Reference:

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

NO.409 Hotspot Question

You have an Azure subscription that contains an Azure AI Content Safety resource.

You are building a social media messaging app.

You need to build a solution that will analyze messages and flag messages that contain explicit content.

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

```
public static void Analyze(dynamic client, string text)
{
```

```
    var request = new
```

AnalyzeText(text);
AnalyzeTextOptions(text);
AnalyzeImage(text);
client.AnalyzeText(text);

```
}
```

```
return
```

AnalyzeImage(request)
client.AnalyzeImage(request)
client.AnalyzeText(request)
request.AnalyzeImage(client)

Answer:

Answer Area

```

public static void Analyze(dynamic client, string text)

{
    var request = new
        {
            AnalyzeText(text);
            AnalyzeTextOptions(text);
            AnalyzeImage(text);
            client.AnalyzeText(text);
        }
}

return
    {
        AnalyzeImage(request)
        client.AnalyzeImage(request)
        client.AnalyzeText(request)
        request.AnalyzeImage(client)
    }
}

```

Explanation:

Box 1: AnalyzeTextOptions

Analyze text content (C#)

Get started with the Content Safety Studio, REST API, or client SDKs to do basic text moderation. The Azure AI Content Safety service provides you with AI algorithms for flagging objectionable content.

Box 2: client.AnalyzeText(request)

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/content-safety/quickstart-text>

NO.410 You plan to create an index for an Azure AI Search service by using the Azure portal. The Azure AI 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. Searchable and Retrievable
- B. Sortable and Retrievable
- C. Searchable and Facetable
- D. Filterable and Retrievable

Answer: A

Explanation:

<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.

NO.411 You have the following C# function.

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

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

You call the function by using the following code.

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

Following 'Key phrases', what 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:

TextAnalyticsClient.ExtractKeyPhrases Method

Runs a model to identify a collection of significant phrases found in the passed-in document. For example, for the document "The food was delicious and there were wonderful staff", the API returns the main talking points: "food" and "wonderful staff".

NO.412 You need to build an app that will capture video meetings and perform the following actions:

- Generate subtitles in real time.
- Recognize speakers in the videos.

What should you use?

- A. Azure AI Custom Vision
- B. Azure AI Video Indexer
- C. Azure AI Speech speech to text meeting transcription
- D. Azure AI Speech speech to text speaker recognition

Answer: B

Explanation:

Azure AI Video Indexer is the ideal choice for analyzing video content, including the tasks of generating subtitles in real-time and recognizing speakers. Video Indexer uses AI to extract metadata,

such as speech-to-text transcription, speaker identification, and other video analysis features. It is specifically designed to handle video files and process them comprehensively for such use cases.

NO.413 You have an Azure subscription.

You need to build an app that will compare documents for semantic similarity. The solution must meet the following requirements:

- Return numeric vectors that represent the tokens of each document.
- Minimize development effort.

Which Azure OpenAI model should you use?

- A.** GPT-3.5
- B.** GPT-4
- C.** embeddings
- D.** DALL-E

Answer: C

NO.414 Drag and Drop Question

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.

Actions
Use the <code>ExportProject</code> endpoint on acvdev.
Use the <code>GetProjects</code> endpoint on acvdev.
Use the <code>ImportProject</code> endpoint on acvprod.
Use the <code>ExportIteration</code> endpoint on acvdev.
Use the <code>GetIterations</code> endpoint on acvdev.
Use the <code>UpdateProject</code> endpoint on acvprod.

Answer Area



Answer:

Actions

- Use the ExportIteration endpoint on acvdev.
- Use the GetIterations endpoint on acvdev.
- Use the UpdateProject endpoint on acvprod.

Answer Area

Use the GetProjects endpoint on acvdev.

Use the ExportProject endpoint on acvdev.



Use the ImportProject endpoint on acvprod.

**Explanation:**

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

NO.415 Hotspot Question

You have a custom analyzer named analyzer1 that performs the following functions:

- The transcription of video content
- The extraction of key frames from videos

You run the following command.

```
curl -i -X POST "https://contoso-ai.openai.azure.com/contentunderstanding/analyzers/analyzer1?api-version=2024-12-01-preview" \
-H "Ocp-Apim-Subscription-Key: 285d057e15e6419eaa5d175b9291ecc1" \
-H "Content-Type: application/json" \
-d "{\"url\":\"https://www.contoso.com/videos/video1.mp4\"}"
```

You receive the following output.

```
202 Accepted
Operation-Location: https://contoso-
ai.openai.azure.com/contentunderstanding/analyzers/analyzer1/results/2cffcb70f71e413eb2193f6653d8028d?api-
version=2024-12-01-preview
```

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

Answer Area

Statements	Yes	No
analyzer1 is in a ready state.	<input type="radio"/>	<input type="radio"/>
analyzer1 finished analyzing the file.	<input type="radio"/>	<input type="radio"/>
The key frames of Video1.mp4 can be retrieved by using the data in the command and the output.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
analyzer1 is in a ready state.	<input checked="" type="radio"/>	<input type="radio"/>
analyzer1 finished analyzing the file.	<input type="radio"/>	<input checked="" type="radio"/>
The key frames of Video1.mp4 can be retrieved by using the data in the command and the output.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box 1: Yes

A 202 response is not an error code, instead it means that your first POST API call was successful.

Box 2: No

This call returns HTTP 202 Accepted. That means, Document intelligence starts the processing of my uploaded document:

Box 3: Yes

Azure AI Content Understanding video solutions

The pre-built video analyzer outputs RAG-ready Markdown that includes:

- * Transcript: Inline transcripts in standard WEBVTT format
- * Description: Natural-language segment descriptions with visual and speech context Segmentation: Automatic scene segmentation breaking the video into logical chunks
- *-> Key Frames: Ordered key-frame thumbnails enabling deeper analysis

Reference:

<https://developer.mozilla.org/en-US/docs/Web/HTTP/Status/202>

<https://github.com/MicrosoftDocs/azure-ai-docs/blob/main/articles/ai-services/content-understanding/video/overview.md>

NO.416 Hotspot Question

You are developing a text processing solution.

You have the function shown below.

```
def get_key_words(textAnalyticsClient, text):

    response = textAnalyticsClient.recognize_entities (documents = [text])[0]
    print("Key Words:")
    for entity in response.entities:
        print("\t\t", entity.text)
```

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

Our tour of Paris included a visit to the Eiffel Tower

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

Answer Area

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

Answer:**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"/>

NO.417 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:

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.

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

Import data

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

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

Data Source **Samples**

Type	Name
	realestate-us-sample
	hotels-sample

Step 7: Continue to the next page.

Step 8: Skip the "Enrich content" page

Step 9: Configure index.

Make sure English is selected for the fields.

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

Import data

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

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

Index name *

Key *

Suggester name **Search mode**

Add field **Add subfield** **Delete**

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

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>

NO.418 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

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

You need to deploy a service in Azure AI 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:

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

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

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

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

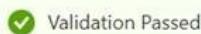
Subscription: choose your paid or trial subscription, depending on how you created your Azure account.

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

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

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

Pricing Tier: Select: Free pricing tier



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

Basics

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

Identity

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

[Create](#)

[< Previous](#)

[Next](#)

[Download a template for automation](#)

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

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

Tag visual features -

Identify and tag visual features in an image, from a set of thousands of recognizable objects, living

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

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

Reference:

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

NO.419 Hotspot Question

You have an Azure subscription that contains an Azure AI Document Intelligence resource named DI1. You build an app named App1 that analyzes PDF files for handwritten content by using DI1.

You need to ensure that App1 will recognize the handwritten content.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
document_analysis_client = DocumentAnalysisClient(  
    endpoint=endpoint, credential=AzureKeyCredential(key)  
)  
  
with open(<filePath>, "rb") as f:  
    poller = document_analysis_client.begin_analyze_document(  
        document=f  
        <-->  
        "prebuilt-document",  
        "prebuilt-contract",  
        "prebuilt-read",  
    )  
  
    result = poller.result()  
  
    for style in result.styles:  
        if style.is_handwritten and style.confidence >  
            <-->  
            0.1  
            0.75  
            1.0  
  
        print("Document contains handwritten content: ")  
        print(", ".join([result.content[span.offset:span.offset + span.length] for span in style.spans]))
```

Answer:

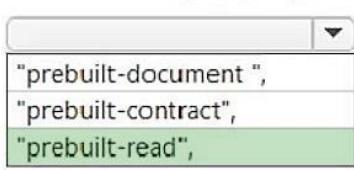
Answer Area

```
document_analysis_client = DocumentAnalysisClient(
    endpoint=endpoint, credential=AzureKeyCredential(key)
)

with open(<filePath>, "rb") as f:
    poller = document_analysis_client.begin_analyze_document(
        document=f
        "prebuilt-document",
        "prebuilt-contract",
        "prebuilt-read",
    )

    result = poller.result()

    for style in result.styles:
        if style.is_handwritten and style.confidence >
            0.75:
            print("Document contains handwritten content: ")
            print(",".join([result.content[span.offset:span.offset + span.length] for span in style.spans]))
```

**NO.420** You have a Language service resource that performs the following:

- Sentiment analysis
- Named Entity Recognition (NER)
- Personally Identifiable Information (PII) identification

You need to prevent the resource from persisting input data once the data is analyzed.

Which query parameter in the Language service API should you configure?

- A.** model-version
- B.** piiCategories
- C.** showStats
- D.** loggingOptOut

Answer: D

Explanation:

The LoggingOptOut parameter is true by default for the PII and health feature endpoints.

Reference <https://learn.microsoft.com/en-us/legal/cognitive-services/language-service/data-privacy>

NO.421 Hotspot Question

You are building an app that will share user images.

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

- Uploaded images must be scanned and any text must be extracted from the images.

- Extracted text must be analyzed for the presence of profane language.
- The solution must minimize development effort.

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

area.

NOTE: Each correct selection is worth one point.

Answer Area

Text extraction:

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

Profane language detection:

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

Answer:

Answer Area

Text extraction:

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

Profane language detection:

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

NO.422 Drag and Drop Question

Match the types of workloads to the appropriate scenarios. To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.

NOTE: Each correct match is worth one point.

Workload Types	Answer Area
Batch	Data for a product catalog will be loaded every 12 hours to a data warehouse.
Streaming	Thousands of data sets per second for online purchases will be loaded into a data warehouse in real time.

Answer:

Workload Types	Answer Area
Batch	Data for a product catalog will be loaded every 12 hours to a data warehouse.
Streaming	Thousands of data sets per second for online purchases will be loaded into a data warehouse in real time.

NO.423 You are building an app that will share user images.

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

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

The solution must minimize development effort.

Which two services should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. object detection in Azure AI Computer Vision

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

Answer: CD

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/concept-detecting-image-types> Image Categorization doesn't identify image as photograph or drawing.

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/concept-categorizing-images> Captions are generated using image descriptions in V3.2. However in V4.0 it is image captions.

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

NO.424 Case Study 1 - Wide World Importers

Overview

Existing Environment

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"  
}
```

Hotspot Question

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.

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: Cognitive Service User

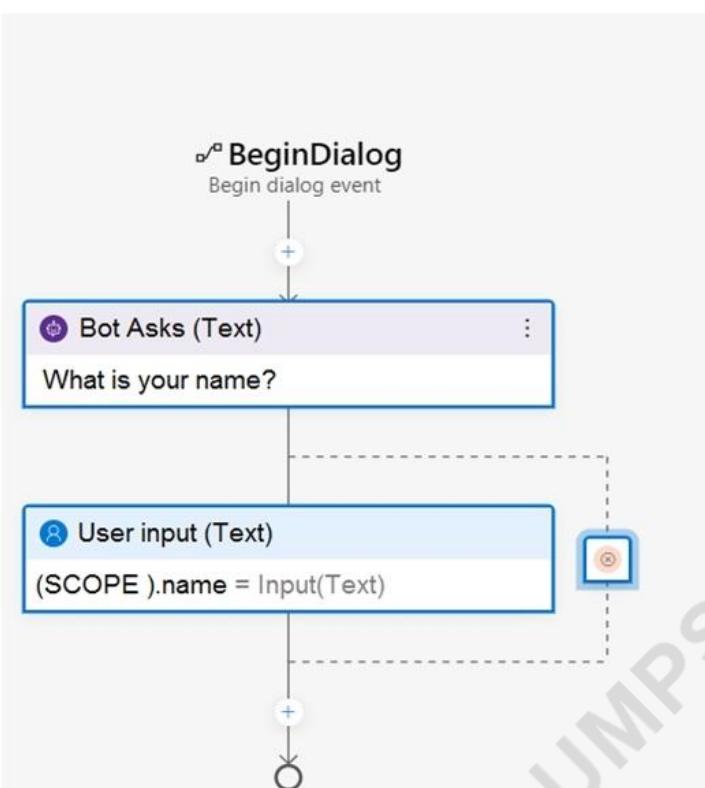
From a least privilege principle perspective, it should be Cognitive Service User. And it can also create new resources.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/reference-role-based-access-control>

NO.425 You are building a chatbot by using the Microsoft Bot Framework Composer as shown in the exhibit. (Click the Exhibit tab.)

GetUserDetails > BeginDialog > Text

[Show code](#)**Prompt for text**

Text Input

Collection information - Ask for a word or sentence.

[Learn more](#)

Bot Asks	User input	Other
Property ②	string	
(SCOPE).name		
Output format ②	string	
Value ②	string	
Expected responses (intent : #TextInput_Response_FuvyF4)		

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

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

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

Which scope should you assign to name?

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

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>

NO.426 Case Study 2 - Contoso, Ltd.

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

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.

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

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 Azure AI Document Intelligence 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:

Need to specify the field name, and then use < 0.7 to handle trigger if confidence score is less than 70%.

Reference:

<https://docs.microsoft.com/en-us/azure/applied-ai-services/form-recognizer/api-v2-0/reference-sdks-api-v2-0>

NO.427 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

NO.428 Hotspot Question

You are building an app that will translate input from English to French and Simplified Chinese by using the Microsoft Translator service.

You need to verify that when profane words are identified, they are marked in the following XML format: <profanity> </profanity>.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
curl -X POST "https://api.cognitive.microsofttranslator.com/translate?api-version=3.0&from=en&to=fr&to=zh-Hans &profanityAction=
  &profanityMarker="
```

Asterisk"	Deleted"
Deleted"	Marked"
Marked"	NoAction"
NoAction"	Tag"

```
-H "Ocp-Apim-Subscription-Key: <client-secret>
-H "Content-Type: application/json; charset=UTF-8"
-d "[{'Text':'This is an <insert-profane-word> good idea.'}]"
```

Answer:

Answer Area

```
curl -X POST "https://api.cognitive.microsofttranslator.com/translate?api-version=3.0&from=en&to=fr&to=zh-Hans &profanityAction=
  &profanityMarker="
```

Asterisk"	Deleted"
Deleted"	Marked"
Marked"	NoAction"
NoAction"	Tag"

```
-H "Ocp-Apim-Subscription-Key: <client-secret>
-H "Content-Type: application/json; charset=UTF-8"
-d "[{'Text':'This is an <insert-profane-word> good idea.'}]"
```

Explanation:

Box 1: Marked

Query parameter

* profanityAction

Optional parameter.

Specifies how profanities should be treated in translations. Possible values are: NoAction (default), Marked, or Deleted.

Box 2: Tag

* profanityMarker

Optional parameter.

Specifies how profanities should be marked in translations. Possible values are: Asterisk (default) or Tag.

Note: Handle profanity

Normally, the Translator service retains profanity that is present in the source in the translation.

The degree of profanity and the context that makes words profane differ between cultures, and as a result the degree of profanity in the target language can be amplified or reduced.

Reference:

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

NO.429 You are building an internet-based training solution. The solution requires that a user's camera and microphone remain enabled.

You need to monitor a video stream of the user and verify that the user is alone and is not collaborating with another user. The solution must minimize development effort.

What should you include in the solution?

- A. speech-to-text in the Azure AI Speech service
- B. object detection in Azure AI Custom Vision
- C. Spatial Analysis in Azure AI Vision
- D. object detection in Azure AI Custom Vision

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/intro-to-spatial-analysis-public-preview?tabs=sa>

NO.430 Hotspot Question

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

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

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

NOTE: Each correct selection is worth one point.

{

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

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

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

Answer:

{

```

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

```

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

NO.431 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 <product>?

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

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

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

Does this meet the goal?

- A. Yes
- B. No

Answer: B**NO.432** 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>

NO.433 Hotspot Question

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:

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

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

NO.434 Hotspot Question

Select the answer that correctly completes the sentence.

Answer Area

Relational data is stored in

a file system as unstructured data.
a hierachal folder structure.
a tabular form of rows and columns.
comma-separated value (CSV) files.

Answer:**Answer Area**

Relational data is stored in

a file system as unstructured data.
a hierachal folder structure.
a tabular form of rows and columns.
comma-separated value (CSV) files.

NO.435 Hotspot Question

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

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

NOTE: Each correct selection is worth one point.

Answer Area

<https://>

<input type="checkbox"/>	api.cognitive.microsofttranslator.com
<input type="checkbox"/>	eastus.api.cognitive.microsoft.com
<input type="checkbox"/>	portal.azure.com

<input type="checkbox"/>	/text/analytics/v3.1/entities/recognition/general
<input type="checkbox"/>	/text/analytics/v3.1/languages
<input type="checkbox"/>	/translator/text/v3.0/translate?to=en
<input type="checkbox"/>	/translator/text/v3.0/translate?to=fr

Answer:

Answer Area

<code>https://</code>	<code>api.cognitive.microsofttranslator.com</code>
	<code>eastus.api.cognitive.microsoft.com</code>
	<code>portal.azure.com</code>

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

Explanation:

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

Incorrect:

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

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

Box 2: `/text/analytics/v3.1/languages`

We only need to detect the language, so the Language Cognitive Service could be used, i.e.:

`POST {Endpoint}/text/analytics/v3.0/languages`

where Endpoint could be for example "westus"

<https://docs.microsoft.com/en-us/rest/api/cognitiveservices-textanalytics/3.0/languages/languages?tabs=HTTP>

Reference:

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

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

NO.436 You have an Azure subscription that contains an Azure AI Language service 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

NO.437 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 subscription that contains an Azure OpenAI resource named AI1 and an Azure AI Content Safety resource named CS1.

You build a chatbot that uses AI1 to provide generative answers to specific questions and CS1 to check input and output for objectionable content.

You need to optimize the content filter configurations by running tests on sample questions.

Solution: From Content Safety Studio, you use the Monitor online activity feature to run the tests.

Does this meet the requirement?

A. Yes

B. No

Answer: B

Explanation:

The Monitor online activity feature in Content Safety Studio is typically used for tracking and analyzing real-time online activities, which is not directly related to testing or optimizing content filtering configurations on sample questions. To optimize and test content filters for a chatbot, you would use features like Moderate text content that are specifically designed for detecting objectionable content in text inputs and outputs. Therefore, this solution does not meet the requirement.

NO.438 Hotspot Question

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.

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:

SelectItem is the intent, and each item below it are example utterances that capture ways users can express this intent. Entities in .lu files are denoted using {<entityName>=<labeled value>} notation. Taking from our sample code once again, you can find the bottom left entity within the following utterance: choose the {@DirectionalReference=bottom left}.

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

NO.439 Hotspot Question

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:

Box 1: Yes

Box 2: Yes

If several logs are detected, or the logo image and the stylized brand name are detected as two separate logos, it starts numbering them from the bottom-left corner.

Box 3: No

Note:

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.

Reference:

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

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

NO.440 Hotspot Question

You have an Azure subscription that contains an Azure OpenAI resource.

You configure a model that has the following settings:

- Temperature: 1

- Top probabilities: 0.5
- Max response tokens: 100

You ask the model a question and receive the following response.

```
{
  "choices": [
    {
      "finish_reason": "stop",
      "index": 0,
      "message": {
        "content": "The founders of Microsoft are Bill Gates and Paul Allen. They co-founded the company in 1975.",
        "role": "assistant"
      }
    }
  ],
  "created": 1679014554,
  "id": "chatcmpl-6usfn2yyjkbmESe3G4jaQR6bDSc01",
  "model": "gpt-3.5-turbo-0301",
  "object": "chat.completion",
  "usage": {
    "completion_tokens": 86,
    "prompt_tokens": 37,
    "total_tokens": 123
  }
}
```

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements

The subscription will be charged 86 tokens for the execution of the session.

Yes	<input type="radio"/>	No	<input type="radio"/>
------------	-----------------------	-----------	-----------------------

The text completion was truncated because the Max response tokens value was exceeded.

Yes	<input type="radio"/>	No	<input type="radio"/>
------------	-----------------------	-----------	-----------------------

The prompt_tokens value will be included in the calculation of the Max response tokens value.

Yes	<input type="radio"/>	No	<input type="radio"/>
------------	-----------------------	-----------	-----------------------

Answer:

Answer Area

Statements

The subscription will be charged 86 tokens for the execution of the session.

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

The text completion was truncated because the Max response tokens value was exceeded.

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

The prompt_tokens value will be included in the calculation of the Max response tokens value.

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

NO.441 You require to add a multi-turn context for a question in an existing knowledge base. How can you achieve that?

- A. Enable Active Learning for the knowledge base.
- B. Add alternative phrasing to the question.
- C. Add a follow-up prompt to the question.

Answer: C

Explanation:

To add a multi-turn context to a question, define a follow-up prompt.

NO.442 You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You build a chatbot that uses AI1 to provide generative answers to specific questions.

You need to ensure that questions intended to circumvent built-in safety features are blocked.

Which Azure AI Content Safety feature should you implement?

- A.** Moderate text content
- B.** Protected material text detection
- C.** Prompt Shields
- D.** Monitor online activity

Answer: C

Explanation:

Prompt Shields in Azure AI Content Safety are specifically designed to detect and block prompts or questions that attempt to bypass safety features in generative AI models, such as those used in chatbots. This feature ensures that the chatbot adheres to safety and ethical guidelines by preventing inappropriate or harmful content generation.

NO.443 Case Study 1 - Wide World Importers

Overview

Existing Environment

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.

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 AI 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 AI 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 AI 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 all 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 Azure AI 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 autosuggestion 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"  
}
```

Hotspot Question

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.

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	

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	

NO.444 Drag and Drop Question

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. (Choose four.)

Actions

Answer Area

Train the application.

Publish the application.

Add a new application.

Add example utterances.

Add the prebuilt domain ToDo.

Answer:

Actions

Answer Area

Add a new application.

Add the prebuilt domain ToDo.

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 the prebuilt domain ToDo

In order to minimize dev time you should include the prebuilt domain ToDo.

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>

<https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-reference-prebuilt-domains>

NO.445 Hotspot Question

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.

```
static async void AddFace(string subscription_key, string personGroupId, string personId, string imageURI)
{
    var client = new HttpClient();
    client.DefaultRequestHeaders.Add("Ocp-Apim-Subscription-Key", subscription_key);
    var endpointURI = $"https://westus.api.cognitive.microsoft.com/face/v1.0/persongroups/{personGroupId}/persons/{personId}/persistedFaces";
    HttpResponseMessage response;
    var body = "{ \"url\": " + imageURI + "}";
    var content = new StringContent(body, Encoding.UTF8, "application/json");
    var response = await client.PutAsync(endpointURI, content);
}
```

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 add a face image to a person object in a person group.	<input type="radio"/>	<input type="radio"/>
The code will work for a group of 10,000 people.	<input type="radio"/>	<input type="radio"/>
AddFace can be called multiple times to add multiple face images to a person object.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

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

Explanation:

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.

To handle larger scale face identification problem, please consider using LargePersonGroup.

We don't know the subscription tier, we can't deduce this statement.

<https://docs.microsoft.com/en-us/rest/api/faceapi/person-group/create>

NO.446 Your organization uses speech synthesis and now you want to change the voice used in the service. How can you achieve that?

- A.** Specify a SpeechSynthesisOutputFormat enumeration in the SpeechConfig object.
- B.** Set the SpeechSynthesisVoiceName property of the SpeechConfig object to the desired voice name.
- C.** Specify a filename in the AudioConfig object.

Answer: B

Explanation:

To set a voice, set the SpeechSynthesisVoiceName property of the SpeechConfig to a voice name, such as "en-GB-George".

NO.447 Drag and Drop Question

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

You need to configure App1 to translate English to German.

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

NOTE: Each correct selection is worth one point.

Values	Answer Area
add_target_language	
speech_synthesis_language	
speech_recognition_language	
voice_name	

```

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	Answer Area
speech_synthesis_language	
voice_name	

```

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

Explanation:

Box 1: speechRecognitionLanguage

speechRecognitionLanguage

Gets/Sets the speech recognition language.

Box 2: speechSynthesisLanguage

speechSynthesisLanguage

Gets the language of the speech synthesizer.

Reference:

<https://learn.microsoft.com/en-us/javascript/api/microsoft-cognitiveservices-speech-sdk/speechtranslationconfig>

NO.448 Hotspot Question

You are creating an enrichment pipeline that will use Azure AI 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.

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>

NO.449 Drag and Drop Question

You have an Azure subscription that contains an Azure AI Search resource named AS1.

You implement a custom skill in AS1 that performs language and sentiment analysis of documents.

You are evaluating the use of AS1 as part of an enrichment pipeline.

In which order will AS1 index the documents? To answer, move all indexing stages from the list of stages to the answer area and arrange them in the correct order.

Stages	Answer Area
output field mappings	1. <input type="text"/>
skillset execution	2. <input type="text"/>
document cracking	3. <input type="text"/> 
push to index	4. <input type="text"/> 
field mappings	5. <input type="text"/>

Answer:

Stages	Answer Area
	1. <input type="text"/> document cracking
	2. <input type="text"/> skillset execution
	3. <input type="text"/> 
	4. <input type="text"/> 
	5. <input type="text"/> push to index

Explanation:

Document cracking - The document cracking stage extracts text and content from unstructured files like PDFs, Word documents, etc.

Skillset execution - This stage applies the custom skills you defined, such as language and sentiment analysis.

Field mappings - The fields extracted from the document and enrichment are mapped to specific fields in the index schema.

Output field mappings - The output of the skillset execution and field mappings is further processed to ensure it matches the index schema.

Push to index - Finally, the enriched data is pushed to the search index for retrieval.

NO.450 You are building an app that will use the Azure AI Speech service.

You need to ensure that the app can authenticate to the service by using a Microsoft Entra ID 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:**

To sum it up: To configure your Speech resource for Azure AD authentication, create a custom

domain name and assign roles.

NO.451 Hotspot Question

You have an Azure AI 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.

Answer Area

```
curl -H "Ocp-Apim-Subscription-Key: xxx" /
-o "sample.png" -H "Content-Type: application/json" /
https://api.projectoxford.ai/vision/v3.2/
https://contoso1.cognitiveservice.azure.com
https://westus.api.cognitive.microsoft.com
?width=100&height=100&smartCropping=true" /
-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/v3.2/
https://contoso1.cognitiveservice.azure.com
https://westus.api.cognitive.microsoft.com
?width=100&height=100&smartCropping=true" /
-d "{\"url\":\"https://upload.litwareinc.org/litware/bicycle.jpg\"}"
```

Explanation:

Box 1: "https://contoso1.cognitiveservice.azure.com"

Use contoso1 to refer to the resource.

Box 2: generateThumbnail

Azure AI Services Vision, Generate a smart-cropped thumbnail

You can use Image Analysis 3.2 to generate a thumbnail with smart cropping. You specify the desired height and width, which can differ in aspect ratio from the input image. Image Analysis uses smart cropping to intelligently identify the area of interest and generate cropping coordinates around that region.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/how-to/generate-thumbnail>

NO.452 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 AI 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. Create a mirror of the data in Finance in an Azure SQL database.
- D. Ingest the data in Logs into Azure Data Explorer.

Answer: C

NO.453 Hotspot Question

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

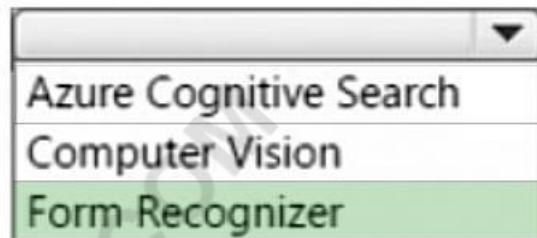
Perform sentiment analysis:

Azure Cognitive Search
Computer Vision
Form Recognizer
Language

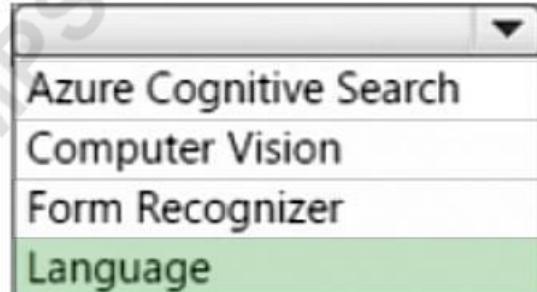
Answer:

Answer Area

Extract text:



Perform sentiment analysis:



NO.454 You are developing a method that uses the Azure AI Vision client library. The method will perform optical character recognition (OCR) in images. The method has the following code.

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

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

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

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

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

NOTE: Each correct selection is worth one point.

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

Answer: BD

NO.455 You have an Azure subscription. The subscription contains an Azure OpenAI resource that hosts a GPT-4 model named Model1 and an app named App1. App1 uses Model1. You need to ensure that App1 will NOT return answers that include hate speech. What should you configure for Model1?

- A. the Frequency penalty parameter
- B. abuse monitoring
- C. a content filter
- D. the Temperature parameter

Answer: C

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/openai/concepts/content-filter?tabs=warning%2Cpython>

NO.456 Your organization wants to create an application that monitor the reviews on your website and notify when any negative review is posted. How can you achieve that?

- A. Use the Translator service to detect profanities in comments.
- B. Use the Text Analytics service to perform sentiment analysis of the comments.
- C. Use the Text Analytics service to extract named entities from the comments.

Answer: B

Explanation:

You can use sentiment analysis to evaluate how positive or negative text is.

NO.457 Drag and Drop Question

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to build an app named App1 that will write press releases by using AI1.

You need to deploy an Azure OpenAI model for App1. The solution must minimize development effort.

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

Actions

- Create a deployment that uses the text-embedding-ada-002 model.
- Apply the Marketing Writing Assistant system message template.
- Apply the Default system message template.
- Create a deployment that uses the GPT-35 Turbo model.
- Deploy the solution to a new web app.

Answer Area

1	
2	
3	



Answer:

Actions

Create a deployment that uses the text-embedding-ada-002 model.

Apply the Default system message template.

Answer Area

1 Create a deployment that uses the GPT-35 Turbo model.

2 Apply the Marketing Writing Assistant system message template.

3 Deploy the solution to a new web app.



NO.458 You have an Azure subscription that contains an Azure AI Language custom question answering project named QA1.

You need to import question and answer pairs to QA1.

Which two file formats can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.** Excel
- B.** TSV
- C.** JSON
- D.** CSV
- E.** LU

Answer: AB

Explanation:

AI Services, Language Service, Export-import-refresh in custom question answering Import a project

1. Sign in to the Language Studio with your Azure credentials.
2. Scroll down to the Answer questions section and select Open custom question answering.
- *-> 3. Select Import and specify the file type you selected for the export process. Either Excel, or TSV.
4. Select Choose File and browse to the local zipped copy of your project that you exported previously.
5. Provide a unique name for the project you're importing.
6. Remember that a project that has only been imported still needs to be deployed/published if you want it to be live.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/question-answering/how-to/export-import-refresh>

NO.459 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:

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.

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

NO.460 You have a local folder that contains the files shown in the following table.

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

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

Which files can you upload to the Video Indexer website?

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

Answer: B

Explanation:

File1 (WMV, 34 mins, 400 MB): Supported because it uses a supported format (WMV), is under the 2 GB size limit, and has a duration of less than 6 hours.

File2 (AVI, 90 mins, 1,200 MB): Supported because it uses a supported format (AVI), is under the 2 GB size limit, and has a duration of less than 6 hours.

File3 (MOV, 300 mins, 980 MB): Supported because it uses a supported format (MOV), is under the 2 GB size limit, and has a duration of 5 hours (less than the 6-hour limit).

File4 (MP4, 80 mins, 1,800 MB): Supported because it uses a supported format (MP4), is under the 2 GB size limit, and has a duration of less than 6 hours.

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/avi-support-matrix>

NO.461 Hotspot Question

You have an Azure subscription.

You need to deploy an Azure AI Document Intelligence resource.

How should you complete the Azure Resource Manager (ARM) template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
">$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {},
"variables": {},
"resources": [
{
  "type": "Microsoft.CognitiveSearch/accounts",
  "apiVersion": "2023-05-01",
  "name": "DocumentIntelligenceDemo",
  "location": "westeurope",
  "sku": {
    "name": "F0"
  },
  "kind": "CognitiveSearch",
  "properties": {}
}
]
```

Answer:

Answer Area

```

"$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {},
"variables": {},
"resources": [
{
  "type": "/accounts",
  "Microsoft.CognitiveSearch": null,
  "Microsoft.CognitiveServices": null,
  "Microsoft.MachineLearning": null,
  "Microsoft.MachineLearningServices": null
  "apiVersion": "2023-05-01",
  "name": "DocumentIntelligenceDemo",
  "location": "westeurope",
  "sku": {
    "name": "F0"
  },
  "kind": "AiBuilder",
  "CognitiveSearch": null,
  "FormRecognizer": null,
  "OpenAI": null
}
]
}

```

NO.462 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:

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/upload-index-videos>.

NO.463 You are building a social media messaging app.

You need to identify in real time the language used in messages.

Which SDK package should you install?

- A. azure-ai-translation-document
- B. azure-cognitiveservices-speech
- C. azure-ai-translation-text
- D. azure-ai-translation-speech

Answer: C

Explanation:

The "azure-ai-translation-text" SDK is a client library for using the Azure AI Translator service, which includes the Language Detection API. This API allows you to determine the language of a given text string. The SDK simplifies integration of this API into applications, providing tools and libraries for various programming platforms like C#/.NET, Java, JavaScript, and Python.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/translator/text-translation/sdk-overview>

NO.464 You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You build a chatbot that uses AI1 to provide generative answers to specific questions.

You need to ensure that the chatbot checks all input and output for objectionable content.

Which type of resource should you create first?

- A. Microsoft Defender Threat Intelligence (Defender TI)
- B. Azure AI Content Safety
- C. Log Analytics
- D. Azure Machine Learning

Answer: B

Explanation:

To ensure that your chatbot checks all input and output for objectionable content, you should create an Azure AI Content Safety resource. This service is specifically designed to evaluate text and detect potentially harmful or objectionable content, making it ideal for your chatbot's needs. It can help ensure that the responses generated by AI1 are appropriate and meet safety standards.

NO.465 SIMULATION

Use the following login credentials as needed:

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

Azure Username: admin@abc.com

Azure Password: XXXXXXXXXXXX

The following information is for technical support purposes only:

- Lab Instance: 12345678

Task

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

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

Answer:

Step 1: Login

Browse to the Azure Video Indexer website and sign in.

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

Login admin@abc.com

Step 2: Create a project from your video

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

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

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

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

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

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

Reference:

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

NO.466 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:

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.

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

NO.467 You have an Azure AI Search resource named Search1.

You have an app named App1 that uses Search1 to index content.

You need to add a custom skill to App1 to ensure that the app can recognize and retrieve properties from invoices by using Search1.

What should you include in the solution?

- A.** Azure AI Immersive Reader
- B.** Azure OpenAI
- C.** Azure AI Document Intelligence
- D.** Azure AI Custom Vision

Answer: C

Explanation:

Reasoning: To ensure the app can recognize and retrieve properties from invoices using Azure AI Search, you need a service that specializes in analyzing and extracting data from structured documents like invoices. Azure AI Document Intelligence (formerly known as Azure AI Document Intelligence) provides pre-built models for processing invoices, extracting fields such as invoice numbers, dates, totals, and more.

You can integrate Azure AI Document Intelligence with Azure AI Search by adding a custom skill to the search pipeline, allowing the app to extract and index specific properties from invoices.

This ensures that App1 can retrieve relevant content from the invoices efficiently.

NO.468 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:

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>

NO.469 Hotspot Question

You are building an agent by using the Azure AI Agent Service.

You need to ensure that the agent can access publicly accessible data that was released during the past 90 days.

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

NOTE: Each correct selection is worth one point.

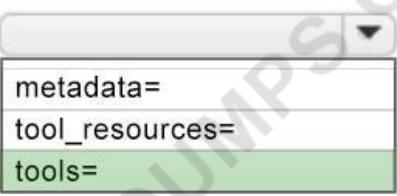
Answer Area

```
...  
conn_id = "search_connection_id"  
search =  (connection_id=conn_id)  
        AzureAISeachTool  
        BingGroundingTool  
        FunctionTool  
with project_client:  
    agent = project_client.agents.create_agent(  
        model="gpt-4o",  
        name="my-assistant",  
        instructions="You are a helpful assistant",  
         search.definitions,  
        metadata=  
        tool_resources=  
        tools=  
    )  
    print(f"Created agent, ID: {agent.id}")
```

Answer:

Answer Area

```

    ...
    conn_id = "search_connection_id"
    search = 
        (connection_id=conn_id)
        AzureAISeachTool
        BingGroundingTool
        FunctionTool
    with project_client:
        agent = project_client.agents.create_agent(
            model="gpt-4o",
            name="my-assistant",
            instructions="You are a helpful assistant",
            
            search.definitions,
            metadata=
            tool_resources=
            tools=
        )
        print(f"Created agent, ID: {agent.id}")

```

Explanation:

Box 1: BingGroundingTool

Grounding with Bing Search allows your Azure AI Agents to incorporate real-time public web data when generating responses. You need to create a Grounding with Bing Search resource, and then connect this resource to your Azure AI Agents. When a user sends a query, Azure AI Agents decide if Grounding with Bing Search should be leveraged or not. If so, it will leverage Bing to search over public web data and return relevant chunks. Lastly, Azure AI Agents will use returned chunks to generate a response.

Box 2: tools=

Create an Agent with the Grounding with Bing search tool enabled

To make the Grounding with Bing search tool available to your agent, use a connection to initialize the tool and attach it to the agent.

Reference:

<https://learn.microsoft.com/en-us/azure/ai-services/agents/how-to/tools/bing-grounding>

<https://learn.microsoft.com/en-us/azure/ai-services/agents/how-to/tools/bing-code-samples?pivot=python>

NO.470 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 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:

<https://learn.microsoft.com/en-us/azure/cognitive-services/luis/concepts/application-design#create-example-utterances-for-each-intent> To start, avoid creating too many utterances for each intent. Once you have determined the intents you need for your app, create 15 to 30 example utterances per intent. Each utterance should be different from the previously provided utterances. Include a variety of word counts, word choices, verb tenses, and punctuation.