

# Microsoft

## Exam Questions AI-102

Designing and Implementing an Azure AI Solution



**NEW QUESTION 1**

- (Exam Topic 1)

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.

- A. Mastered
- B. Not Mastered

**Answer:** A

**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. T Step 2: Index the video by using the Video Indexer API.

When a video is indexed, Video Indexer produces the JSON content that contains details of the specified video insights. The insights include: transcripts, OCRs, faces, topics, blocks, etc.

Step 3: Extract the transcript from the Video Indexer API. Step 4: Translate the transcript by using the Translator API. Reference:

<https://azure.microsoft.com/en-us/blog/get-video-insights-in-even-more-languages/> <https://docs.microsoft.com/en-us/azure/media-services/video-indexer/video-indexer-output-json-v2>

**NEW QUESTION 2**

- (Exam Topic 1)

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**

		<code>?api-version=3.0&amp;to=es&amp;to=pt</code>
api.cognitive.microsofttranslator.com	/detect	
api-nam.cognitive.microsofttranslator.com	/languages	
westus.tts.speech.microsoft.com	/text-to-speech	
wwics.cognitiveservices.azure.com/translator	/translate	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: api.cognitive.microsofttranslator.com

Translator 3.0: Translate. Send a POST request to: <https://api.cognitive.microsofttranslator.com/translate?api-version=3.0> Box 2: /translate

Reference:

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

**NEW QUESTION 3**

- (Exam Topic 1)

**HOTSPOT**

You are developing the shopping on-the-go project.

You are configuring access to the QnA Maker 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:

LeadershipTeam:

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Box 1: QnA Maker Editor

Scenario: Provide all employees with the ability to edit Q&As. The QnA Maker Editor (read/write) has the following permissions: Create KB API Update KB API Replace KB API Replace Alterations "Train API" [in new service model v5]

Box 2: Contributor

Scenario: Only senior managers must be able to publish updates. Contributor permission: All except ability to add new members to roles

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/reference-role-based-access-control>

**NEW QUESTION 4**

- (Exam Topic 1)

You are developing the smart e-commerce project.

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

Which three actions should you perform? Each correct answer presents part of the solution. (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 Cognitive Search, typeahead or "search-as-you-type" is enabled through a suggester. A suggester provides a list of fields that undergo additional tokenization, generating prefix sequences to support matches on partial terms. For example, a suggester that includes a City field with a value for "Seattle" will have prefix combinations of "sea", "seat", "seatt", and "seattl" to support typeahead.

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

Reference:

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

**NEW QUESTION 5**

- (Exam Topic 2)

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

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

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

A conversational expert provides you with the following list of phrases to use for training. Find contacts in London. Who do I know in Seattle?  
 Search for contacts in Ukraine.  
 You need to implement the phrase list in Language Understanding. Solution: You create a new intent for location.  
 Does this meet the goal?

- A. Yes
- B. No

**Answer:** A

**Explanation:**

An intent represents a task or action the user wants to perform. It is a purpose or goal expressed in a user's utterance. Define a set of intents that corresponds to actions users want to take in your application. Reference: <https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-concept-intent>

**NEW QUESTION 6**

- (Exam Topic 2)

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
<code>\${user.name}</code> retrieves the user name by using a prompt.	<input type="radio"/>	<input type="radio"/>
<code>Greet ()</code> is the name of the language generation template.	<input type="radio"/>	<input type="radio"/>
<code>\${Greeting ()}</code> is a reference to a template in the language generation file.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

**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>

**NEW QUESTION 7**

- (Exam Topic 2)

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

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

A conversational expert provides you with the following list of phrases to use for training. Find contacts in London. Who do I know in Seattle?

Search for contacts in Ukraine.

You need to implement the phrase list in Language Understanding. Solution: You create a new pattern in the FindContact intent.

Does this meet the goal?

- A. Yes
- B. No

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

**NEW QUESTION 8**

- (Exam Topic 2)

You build a custom Form Recognizer model.

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

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

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

NOTE: Each correct selection is worth one point.

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

**Answer:** ACF

**Explanation:**

Input requirements

Form Recognizer works on input documents that meet these requirements:

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

File size must be less than 50 MB. Reference:

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

#### NEW QUESTION 9

- (Exam Topic 2)

You have an existing Azure Cognitive Search service.

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

You need to make the scanned documents available to search as quickly as possible. What should you do?

- A. Split the data into multiple blob container
- B. Create a Cognitive Search service for each container
- C. Within each indexer definition, schedule the same runtime execution pattern.
- D. Split the data into multiple blob container
- E. Create an indexer for each container
- F. Increase the search unit
- G. Within each indexer definition, schedule a sequential execution pattern.
- H. Create a Cognitive Search service for each type of document.
- I. Split the data into multiple virtual folder
- J. Create an indexer for each folder
- K. Increase the search units. Within each indexer definition, schedule the same runtime execution pattern.

**Answer:** D

**Explanation:**

Reference:

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

#### NEW QUESTION 10

- (Exam Topic 2)

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.

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"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Reference:

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

**NEW QUESTION 10**

- (Exam Topic 2)

You have a web app that uses Azure Cognitive Search.

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

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

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

Actions	Answer Area
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.	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text Description automatically generated

Reference:

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

**NEW QUESTION 13**

- (Exam Topic 2)

You are building a Language Understanding model for an e-commerce platform. You need to construct an entity to capture billing addresses.

Which entity type should you use for the billing address?

- A. machine learned
- B. Regex
- C. geographyV2
- D. Pattern.any
- E. list

**Answer:** B

**Explanation:**

A regular expression entity extracts an entity based on a regular expression pattern you provide. It ignores case and ignores cultural variant. Regular expression is

best for structured text or a predefined sequence of alphanumeric values that are expected in a certain format. For example:

Entity	Regular expression	Example
Flight Number	flight [A-Z]{2} [0-9]{4}	flight AS 1234
Credit Card Number	[0-9]{16}	5478789865437632

Incorrect answers

C: The prebuilt geographyV2 entity detects places. Because this entity is already trained, you do not need to add example utterances containing GeographyV2 to the application intents. GeographyV2 entity is supported in English culture.

The geographical locations have subtypes:

Subtype	Purpose
poi	point of interest
city	name of city
countryRegion	name of country or region
continent	name of continent
state	name of state or province

D: Pattern.any is a variable-length placeholder used only in a pattern's template utterance to mark where the entity begins and ends.

E: A list entity represents a fixed, closed set of related words along with their synonyms. You can use list entities to recognize multiple synonyms or variations and extract a normalized output for them. Use the recommend option to see suggestions for new words based on the current list.

Reference:

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

### NEW QUESTION 18

- (Exam Topic 2)

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.	

- A. Mastered
- B. Not Mastered

**Answer: A**

#### 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>

**NEW QUESTION 23**

- (Exam Topic 2)

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

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

NOTE: Each correct selection is worth one point.

**Answer Area**

JSON data:  ▼

- File projection
- Object projection
- Table projection

Scanned data:  ▼

- File projection
- Object projection
- Table projection

- A. Mastered
- B. Not Mastered

**Answer:** A

**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>

**NEW QUESTION 24**

- (Exam Topic 2)

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.

**NEW QUESTION 25**

- (Exam Topic 2)

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,
CancellationTokens cancellationTokens)
{
    foreach (var member in membersAdded)
        if (member.Id != turnContext.Activity.Recipient.Id)
            await turnContext.SendActivityAsync($"Hi there - {member.Name}.
{WelcomeMessage}", cancellationTokens: cancellationTokens);
}
```

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"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: Yes

The ActivityHandler.OnMembersAddedAsync method overrides this in a derived class to provide logic for when members other than the bot join the conversation, such as your bot's welcome logic.

Box 2: Yes

membersAdded is a list of all the members added to the conversation, as described by the conversation update activity.

Box 3: No Reference:

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

**NEW QUESTION 30**

- (Exam Topic 2)

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

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

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

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

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

NOTE: Each correct selection is worth one point.

**Answer Area**

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: No

Box 2: Yes

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

Box 3: No

Images will be read from a stream. Reference:

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

**NEW QUESTION 31**

- (Exam Topic 2)

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

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

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

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

You need to ensure that app1 can connect directly to service1 without routing traffic over the public internet. Solution: You deploy service1 and a public endpoint, and you configure an IP firewall rule.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

Reference:

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

**NEW QUESTION 35**

- (Exam Topic 2)

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>

**NEW QUESTION 40**

- (Exam Topic 2)

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	<p><b>Cognitive Insights Widget</b></p> <p><code>https://www.videoindexer.ai/embed/insights/&lt;accountId&gt;/&lt;videoId&gt;/?widgets=</code> <input type="text" value="Value"/> <code>controls=</code> <input type="text" value="Value"/></p> <p><b>Player Widget</b></p> <p><code>https://www.videoindexer.ai/embed/player/&lt;accountId&gt;/&lt;videoId&gt;/? showcaptions=</code> <input type="text" value="Value"/> <code>captions=</code> <input type="text" value="Value"/></p>
false	
people,keywords	
people,search	
search	
true	

A. Mastered

B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application, Word, email Description automatically generated

**NEW QUESTION 43**

- (Exam Topic 2)

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.	

A. Mastered

B. Not Mastered

**Answer:** A

**Explanation:**

Step 1: Add prebuilt domain models as required.

Prebuilt models provide domains, intents, utterances, and entities. You can start your app with a prebuilt model or add a relevant model to your app later.

Note: Language Understanding (LUIS) provides prebuilt domains, which are pre-trained models of intents and entities that work together for domains or common categories of client applications.

The prebuilt domains are trained and ready to add to your LUIS app. The intents and entities of a prebuilt domain are fully customizable once you've added them to your app.

Step 2: Enable active learning

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

Step 3: Train and republish the Language Understanding model

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

Reference:

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

**NEW QUESTION 46**

- (Exam Topic 2)

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:** BD

**Explanation:**

AI systems should treat all people fairly.

AI systems should perform reliably and safely. Reference:

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

**NEW QUESTION 50**

- (Exam Topic 2)

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

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

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

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

    ReadOperationResult results;

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

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

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

You need to prevent the GetReadResultAsync method from proceeding until the read operation is complete. Which two actions should you perform? Each correct answer presents part of the solution. (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/Comp>

**NEW QUESTION 55**

- (Exam Topic 2)

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>

**NEW QUESTION 59**

- (Exam Topic 2)

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

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

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

```
var userStateAccessors = _userState.CreateProperty<UserProfile>(nameof(UserProfile)); var conversationStateAccessors =
_conversationState.CreateProperty<ConversationData>(nameof(ConversationData));
```

The state storage mechanism is set to Memory Storage.

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

NOTE: Each correct selection is worth one point.

**Answer Area**

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**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>

**NEW QUESTION 60**

- (Exam Topic 2)

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

Reference:

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

**NEW QUESTION 65**

- (Exam Topic 2)

You plan to use a Language Understanding application named `app1` that is deployed to a container. `app1` was developed by using a Language Understanding authoring resource named `lu1`.

`app1` has the versions shown in the following table.

Version	Trained date	Published date
V1.2	None	None
V1.1	2020-10-01	None
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. (Choose three.)

**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.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Step 1: Export the model using the Export for containers (GZIP) option. Export versioned app's package from LUIS portal  
 The versioned app's package is available from the Versions list page.

- > Sign on to the LUIS portal.
- > Select the app in the list.
- > Select Manage in the app's navigation bar.
- > Select Versions in the left navigation bar.
- > Select the checkbox to the left of the version name in the list.
- > Select the Export item from the contextual toolbar above the list.
- > Select Export for container (GZIP).
- > The package is downloaded from the browser.



Step 2: Select v1.1 of app1.

A trained or published app packaged as a mounted input to the container with its associated App ID. Step 3: Run a contain and mount the model file. Run the container, with the required input mount and billing settings. Reference: <https://docs.microsoft.com/en-us/azure/cognitive-services/luis/luis-container-howto>

**NEW QUESTION 70**

- (Exam Topic 2)

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"
    };

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

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

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

- A. Mastered
- B. Not Mastered

**Answer: A**

**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);
}
```

**NEW QUESTION 71**

- (Exam Topic 2)

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

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

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

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

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

You need to implement the phrase list in Language Understanding. Solution: You create a new entity for the domain.

Does this meet the goal?

- A. Yes
- B. No

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

**NEW QUESTION 72**

- (Exam Topic 2)

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="checkbox"/>	<input type="checkbox"/>
The code will return coordinates for the bottom-left corner of the rectangle that contains the brand logo of the displayed brands.	<input type="checkbox"/>	<input type="checkbox"/>
The code will return coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.	<input type="checkbox"/>	<input type="checkbox"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

**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 Reference:

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

**NEW QUESTION 76**

- (Exam Topic 2)

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

@m1 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.

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

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application, email Description automatically generated

Reference:

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

**NEW QUESTION 81**

- (Exam Topic 2)

You are building an Azure Cognitive Search custom skill. You have the following custom skill schema definition.

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

For each of the following statements, select Yes if the statement. 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"/>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: Yes

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

Box 2: Yes

The definition is a custom skill that calls a web API as part of the enrichment process. Box 3: No

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

Reference:

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

### NEW QUESTION 85

- (Exam Topic 2)

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($"{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"/>

A. Mastered

B. Not Mastered

**Answer:** A

#### 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-to/text-analytics-how-to-keyword>

### NEW QUESTION 89

- (Exam Topic 2)

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 ExportProject endpoint on acvdev.
- Use the GetProjects endpoint on acvdev.
- Use the ImportProject endpoint on acvprod.
- Use the ExportIteration endpoint on acvdev.
- Use the GetIterations endpoint on acvdev.
- Use the UpdateProject endpoint on acvprod.

**Answer Area**



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Text Description automatically generated

Reference:

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

**NEW QUESTION 94**

- (Exam Topic 2)

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/to/person/{i}/images";
    foreach (string imagePath in Directory.GetFiles(personImageDir, "*.jpg"))
    {
        using (  t = File.OpenRead(imagePath))
            {
                
                await faceClient.PersonGroupPerson.
                    
            }
        (personGroupId, personId, t);
    }
});
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**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: CreateAsync

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

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

Reference:

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

**NEW QUESTION 99**

- (Exam Topic 2)

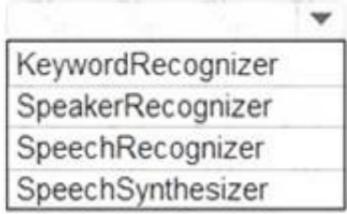
You are developing a streaming Speech to Text solution that will use the Speech SDK and MP3 encoding. You need to develop a method to convert speech to text for streaming MP3 data.

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

NOTE: Each correct selection is worth one point.

```

var audioFormat =  (AudioStreamContainerFormat.MP3);

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

```

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface, text, application, email Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/how-to-use-codec-compressed-audio-i>

**NEW QUESTION 103**

- (Exam Topic 2)

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: D**

**Explanation:**

Reference:

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

**NEW QUESTION 104**

- (Exam Topic 2)

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
- findsimilars
- 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": " "
}
```

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: detect

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

POST {Endpoint}/face/v1.0/detect Box 2: matchPerson

Find similar has two working modes, "matchPerson" and "matchFace". "matchPerson" is the default mode that it tries to find faces of the same person as possible by using internal same-person thresholds. It is useful to find a known person's other photos. Note that an empty list will be returned if no faces pass the internal thresholds.

"matchFace" mode ignores same-person thresholds and returns ranked similar faces anyway, even the similarity is low. It can be used in the cases like searching celebrity-looking faces.

Reference:

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

**NEW QUESTION 109**

- (Exam Topic 2)

A customer uses Azure Cognitive Search.

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

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

NOTE: Each correct selection is worth one point.

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

**Answer:** ABE

**Explanation:**

Reference:

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

**NEW QUESTION 110**

.....

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