

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

- United States

api-nam.cognitive.microsofttranslator.com

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

- translate

Translate specified source language text into the target language text.

### Question: 163

CertyIQ

DRAG DROP

-

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

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

You need to run model1 on Host1.

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

**Actions**

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



**Answer Area**



### Answer:

**Actions**

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



**Answer Area**

Request approval to run the container.
Export model1 to Host1.
Run the container.



### Explanation:

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

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

### Question: 164

CertyIQ

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

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

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

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

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

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

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

Does this meet the goal?

- A.Yes
- B.No

**Answer: B**

**Explanation:**

B. No

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

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

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

## Question: 165

CertyIQ

DRAG DROP

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

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

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

**Actions**

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

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

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

**Answer Area**

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

**Explanation:**

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

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

**Question: 166**
**CertyIQ**
**DRAG DROP**

You are building a customer support chatbot.

You need to configure the bot to identify the following:

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

The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

**Features**

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

**Answer Area**

Identify code names for internal product development:

Identify messages that include credit card numbers:

**Answer:**

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

### Explanation:

1. Custom NER
2. PII detection

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

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

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

PII detection is one of the features offered by Azure Cognitive Service for Language, a collection of machine learning and AI algorithms in the cloud for developing intelligent applications that involve written language. The PII detection feature can identify, categorize, and redact sensitive information in unstructured text. For example: phone numbers, email addresses, and forms of identification.

### Question: 167

CertyIQ

HOTSPOT

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

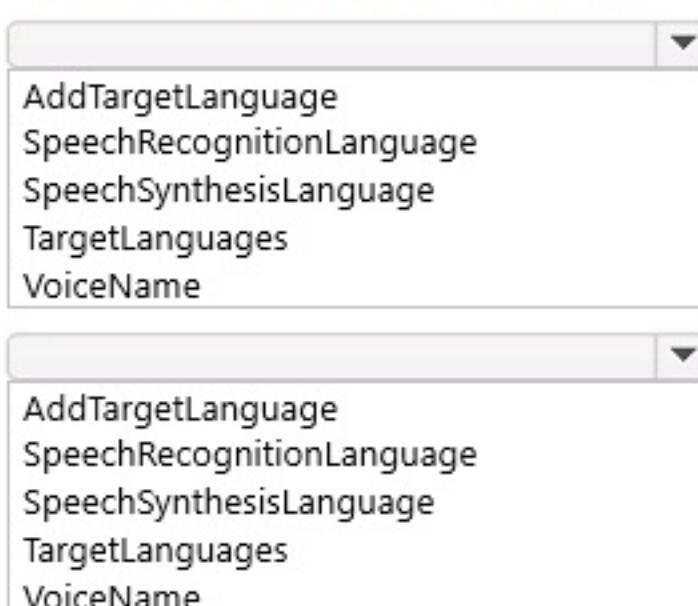
You need to define the source language and the output language.

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

NOTE: Each correct selection is worth one point.

## Answer Area

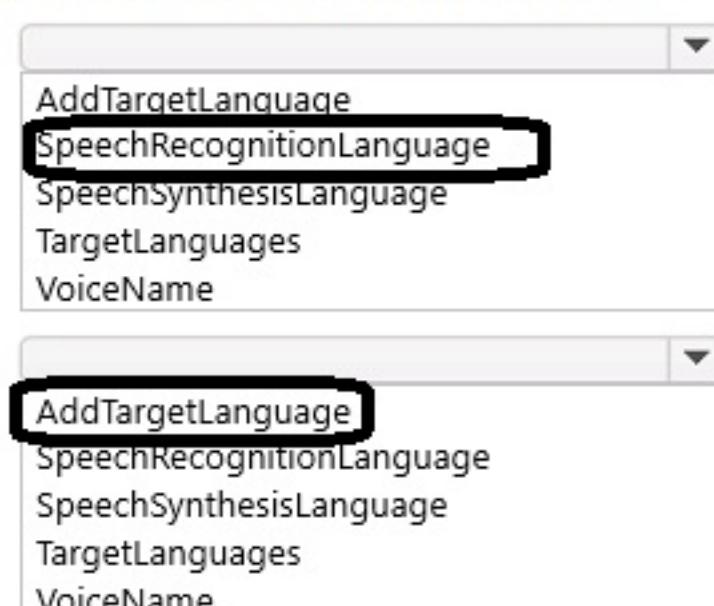
```
var speechTranslationConfig =  
SpeechTranslationConfig.FromSubscription(speechKey, speechRegion);  
speechTranslationConfig.  
speech_translation_config.  
= "fr"  
("de")
```



Answer:

## Answer Area

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



## Question: 168

DRAG DROP

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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:

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.	▶

### Explanation:

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

### Question: 169

You have the following C# function.

```

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

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

```

You call the function by using the following code.

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

Which output will you receive?

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

**Answer:** D

**Explanation:**

Quick brown fox  
lazy dog

### Question: 170

CertyIQ

You have the following Python method.

```

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

```

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

How should you call the method?

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

**Answer: D**

**Explanation:**

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

CertyIQ

**Question: 171**

DRAG DROP

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

You need to configure App1 to translate English to German.

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

NOTE: Each correct selection is worth one point.

**Values**

- add\_target\_language
- speech\_synthesis\_language
- speech\_recognition\_language
- voice\_name

**Answer Area**

```
def translate_speech_to_text():

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

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

**Answer:**

**Values**

- add\_target\_language
- speech\_synthesis\_language
- speech\_recognition\_language
- voice\_name

**Answer Area**

```
def translate_speech_to_text():

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

**Explanation:**

Speech\_recognition\_language

Add\_target\_language

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

CertyIQ

**Question: 172**

HOTSPOT

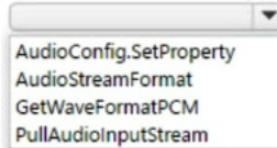
You are developing a streaming Speech to Text solution that will use the Speech SDK and MP3 encoding.

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

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

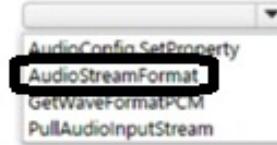
NOTE: Each correct selection is worth one point.

#### Answer Area

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

#### Answer:

#### Answer Area

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

#### Explanation:

[https://github.com/Azure-Samples/cognitive-services-speech-sdk/blob/master/samples/python/console/speech\\_sample.py](https://github.com/Azure-Samples/cognitive-services-speech-sdk/blob/master/samples/python/console/speech_sample.py)

#### Question: 173

HOTSPOT

You are building a chatbot.

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

# Content Moderator - Moderate Text - Screen

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

Name

[resource name].cognitiveser ▾

Resource Name

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

[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

## Question: 174

CertyIQ

You are developing an app that will use the Decision and Language APIs.

You need to provision resources for the app. The solution must ensure that each service is accessed by using a single endpoint and credential.

Which type of resource should you create?

- A.Language
- B.Speech
- C.Azure Cognitive Services
- D.Content Moderator

**Answer: C**

**Explanation:**

Correct answer is C: Azure Cognitive Services.

**CertyIQ**

**Question: 175**

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**

**Explanation:**

C. custom Named Entity Recognition (NER)Custom NER allows you to train a model to recognize specific terms relevant to your business, such as product names and codenames.

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/concept-shelf-analysis>

**CertyIQ**

**Question: 176**

You have an Azure subscription that contains an Azure App Service app named App1.

You provision a multi-service Azure Cognitive Services resource named CSAccount1.

You need to configure App1 to access CSAccount1. The solution must minimize administrative effort.

What should you use to configure App1?

- A.a system-assigned managed identity and an X.509 certificate
- B.the endpoint URI and an OAuth token
- C.the endpoint URI and a shared access signature (SAS) token
- D.the endpoint URI and subscription key

**Answer: D**

**Explanation:**

the endpoint URI and subscription key.

**CertyIQ**

**Question: 177**

You have an Azure subscription that contains a multi-service Azure Cognitive Services Translator resource named Translator1.

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

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

Which headers should you include in the request?

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

**Answer: D**

**Explanation:**

the subscription key, the subscription region, and the content type.

**CertyIQ**

**Question: 178**

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**

**Explanation:**

Azure AI Document Intelligence.

**CertyIQ**

**Question: 179**

HOTSPOT

-

You are developing a text processing solution.

You have the function shown below.

```

def get_key_words(textAnalyticsClient, text):

    response = textAnalyticsClient.recognize_entities (documents = [text])[0]
    print("Key Words:")
    for entity in response.entities:
        print("\t\t", entity.text)

```

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

Our tour of Paris included a visit to the Eiffel Tower

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

### **Answer Area**

<b>Statements</b>	<b>Yes</b>	<b>No</b>
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**

<b>Statements</b>	<b>Yes</b>	<b>No</b>
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:**

No

Yes

No

### **Question: 180**

CertyIQ

HOTSPOT

-

You are developing a text processing solution.

You develop the following method.

```

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

```

You call the method by using the following code.

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

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

Answer:

## Answer Area

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

Explanation:

Yes

No

No

## Question: 181

HOTSPOT

-

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

You have a method named append\_to\_transcript\_file that takes translated text and a language identifier.

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

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

NOTE: Each correct selection is worth one point.

### Answer Area

```
speech_key = os.environ['SPEECH_SUBSCRIPTION_KEY']
service_region = os.environ['SPEECH_SERVICE_REGION']
def translate_speech():
    translation_config = speechsdk.translation.SpeechTranslationConfig(
        subscription=speech_key, region=service_region)
    translation_config.speech_recognition_language = "en-GB"
    languages = [
        ('en-GB')
        ('fr', 'de', 'es')
        ('French', 'Spanish', 'German')
        ('languages')]
    for language in languages: translation_config.add_target_language(language)
    audio_config = speechsdk.audio.AudioConfig(use_default_microphone=True)
    recognizer = speechsdk.translation.
        IntentRecognizer()
        SpeakerRecognizer()
        SpeechSynthesizer()
        TranslationRecognizer()
    translation_config=translation_config, audio_config=audio_config)
    result = recognizer.recognize_once()
    if result.reason == speechsdk.ResultReason.TranslatedSpeech:
        append_to_transcript_file(result.text, "en")
        for language in result.translations:
            append_to_transcript_file(result.translations[language], language)
```

Answer:

## 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)
```

## Question: 182

CertyIQ

You are developing an app that will use the text-to-speech capability of the Azure AI Speech service. The app will be used in motor vehicles.

You need to optimize the quality of the synthesized voice output.

Which Speech Synthesis Markup Language (SSML) attribute should you configure?

- A.the style attribute of the mstts:express-as element
- B.the effect attribute of the voice element
- C.the pitch attribute of the prosody element
- D.the level attribute of the emphasis element

**Answer: B**

**Explanation:**

the effect attribute of the voice element.

**Question: 183**

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:**

Correct answer is A:Azure AI Immersive Reader.

**Question: 184**

HOTSPOT

-

You are building an app that will answer customer calls about the status of an order. The app will query a database for the order details and provide the customers with a spoken response.

You need to identify which Azure AI service APIs to use. The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

**Answer Area**

Convert customer calls into text queries:

SpeechRecognizer
SpeechSynthesizer
TranslationRecognizer
VoiceProfileClient

Provide customers with the order details:

SpeechRecognizer
SpeechSynthesizer
TranslationRecognizer
VoiceProfileClient

**Answer:**

## Answer Area

Convert customer calls into text queries:

SpeechRecognizer

SpeechSynthesizer

TranslationRecognizer

VoiceProfileClient

Provide customers with the order details:

SpeechRecognizer

SpeechSynthesizer

TranslationRecognizer

VoiceProfileClient

### Explanation:

Speech Recognizer.

Speech Synthesizer.

## Question: 185

CertyIQ

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: D

### Explanation:

azure-cognitiveservices-speech.

## Question: 186

CertyIQ

HOTSPOT

-

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

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

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

NOTE: Each correct selection is worth one point.

#### Answer Area

```
speech_key, service_region = os.environ['SPEECH__SERVICE__KEY'], os.environ['SPEECH__SERVICE__REGION']

languages = [
    ['en-GB']
    {'en','fr','de','es'}
    ['fr','de','es']
    {"French","Spanish","German" }

def translate_speech_to_text():
    translation_config = speechsdk.translation.SpeechTranslationConfig(subscription=speech_key, region=service_region)
    for lang in languages:
        translation_config.add_target_language(lang)
        for lang in languages:
            translation_config.add_target_language(lang)
    recognizer = speechsdk.translation. (translation_config=translation_config)
    ...
    IntentRecognizer
    SpeakerRecognizer
    SpeechSynthesizer
    TranslationRecognizer
```

#### 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. (translation_config=translation_config)
    ...
    IntentRecognizer
    SpeakerRecognizer
    SpeechSynthesizer
    TranslationRecognizer
```

#### Question: 187

CertyIQ

DRAG DROP

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

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

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

#### Actions

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

#### Answer Area



#### Answer:

#### 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

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



#### Explanation:

Create an Azure Machine Learning workspace.

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

Create an endpoint for the model.

Provision an Azure AI Services resource and obtain the endpoint.

Connect the custom skill the endpoint.

#### Question: 188

CertyIQ

HOTSPOT

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

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

Extract text:

- Azure 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**

Explanation:

Extract text:

**Azure AI Document Intelligence.**

Azure AI Document Intelligence (formerly known as Form Recognizer) is designed to extract text and structure from documents.

Perform sentiment analysis:

**Azure AI Language.**

Azure AI Language provides natural language processing (NLP) capabilities, including sentiment analysis.

**Question: 189**

CertyIQ

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:**

Spatial Analysis in Azure AI Vision.

**Question: 190**

CertyIQ

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****Explanation:**

Azure AI Services.

**Question: 191**

CertyIQ

HOTSPOT

-

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

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

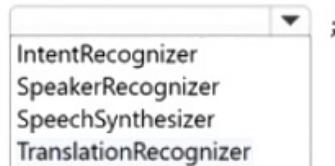
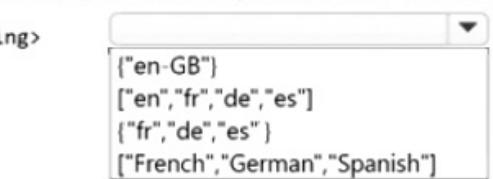
How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

```
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();
    ...
}
```

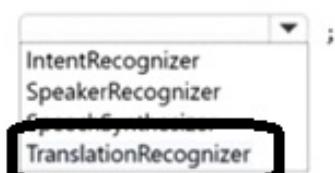
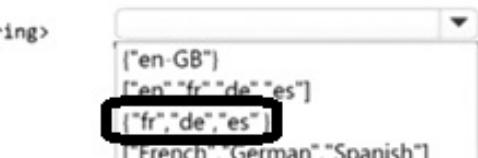


## Answer:

### 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();
    ...
}
```



## Question: 192

CertyIQ

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:**

A. Pattern AnyFrom: <https://learn.microsoft.com/en-us/azure/ai-services/luis/concepts/patterns-features#patternany-entityFor Airports> this means: You can express the Airport Name in Full as "John F. Kennedy International Airport" or in short with the code as "JFK" LUIS will have to get both as the same.

**Question: 193****CertyIQ**

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****Explanation:**

quick brown fox

lazy dog.

**Question: 194****CertyIQ**

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:**

Correct answer is C:EntityRecognitionSkill.

### Question: 195

CertyIQ

HOTSPOT -

You are developing a text processing solution.

You develop the following method.

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

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

You call the method by using the following code.

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

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

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-key-word-extraction>

## Question: 196

CertyIQ

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

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

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

What should you do next?

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

## Answer: C

### Explanation:

C is the answer.

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

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

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

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

**Question: 197**

CertyIQ

You have an existing Azure Cognitive Search service.

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

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

What should you do?

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

**Answer: D****Explanation:**

Incorrect Answers:

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

B: Run them in parallel, not sequentially.

C: Need a blob indexer.

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

Index large datasets -

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

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

Reference:

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

**Question: 198**

CertyIQ

You need to implement a table projection to generate a physical expression of an Azure Cognitive Search index.

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

NOTE: Each correct selection is worth one point.

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

**Answer: ABE****Explanation:**

Defining a table projection.

Each table requires three properties:

⇒ tableName: The name of the table in Azure Storage.

⇒ generatedKeyName: The column name for the key that uniquely identifies this row.

⇒ source: The node from the enrichment tree you are sourcing your enrichments from. This node is usually the output of a shaper, but could be the output of any of the skills.

Reference:

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

### Question: 199

CertyIQ

HOTSPOT -

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

JSON data:

File projection
Object projection
Table projection

Scanned data:

File projection
Object projection
Table projection

Answer:

## Answer Area

JSON data:

File projection
Object projection
Table projection

Scanned data:

File projection
Object projection
Table projection

### Explanation:

Box 1: Object projection -

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

Box 2: File projection -

File projections are similar to object projections and only act on the normalized\_images collection.

### Reference:

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

## Question: 200

CertyIQ

### HOTSPOT -

You are building an Azure Cognitive Search custom skill.

You have the following custom skill schema definition.

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

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

Answer:

### Answer Area

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

### Explanation:

Box 1: Yes -

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

Box 2: Yes -

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

Box 3: No -

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

organization.

Reference:

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

CertyIQ

### Question: 201

You have the following data sources:

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

HR: Azure SQL database -

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

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

### Answer: B

**Explanation:**

B. Mirror Finance to an Azure SQL database.

Azure Cognitive Search requires an indexer to pull data from various data sources. However, on-premises Microsoft SQL Server is not a supported built-in data source for Azure Cognitive Search. The best approach is to mirror (replicate) the Finance SQL Server database to an Azure SQL database, which is a supported data source for Azure Cognitive Search.

Why Not the Other Options?

A. Configure multiple read replicas for the data in Sales:

Azure Cosmos DB (SQL API) is already supported natively by Azure Cognitive Search. Read replicas do not help with integrating search functionality.

C. Ingest the data in Logs into Azure Data Explorer:

While Azure Data Explorer is useful for log analytics, it does not help integrate with Azure Cognitive Search.

D. Ingest the data in Logs into Azure Sentinel:

Azure Sentinel is used for security analytics, not for making logs searchable using Azure Cognitive Search.

CertyIQ

### Question: 202

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

**Answer: A**

**Explanation:**

keyPhrases

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

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

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

**Reference:**

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

**CertyIQ**

**Question: 203**

DRAG DROP -

You have a web app that uses Azure Cognitive Search.

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

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

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

Select and Place:

**Actions**

Add a new query key.

Regenerate the secondary admin key.

Change the app to use the secondary admin key.

Change the app to use the new key.

Regenerate the primary admin key.

Delete the compromised key.

**Answer Area**



**Answer:**

**Actions**

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

**Answer Area**

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

**Explanation:**

Regenerate the secondary admin key.  
change the app to use the secondary admin key.  
Regenarate the primary admin key.

**Question: 204****CertyIQ**

You are developing an application that will use Azure Cognitive Search for internal documents. You need to implement document-level filtering for Azure Cognitive Search. Which three actions should you include in the solution? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

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

**Answer: CDF****Explanation:**

D: Add allowed groups to each index entry.

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

**Reference:**

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

C: You need to get the membership of the user

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

"In order to trim documents based on group\_ids access, you should issue a search query with a group\_ids/any(g:search.in(g, 'group\_id1, group\_id2,...')) filter, where 'group\_id1, group\_id2, ...' are the groups to which the search ##request issuer belongs##."

**Reference:**

**Question: 205**

You have an Azure Cognitive Search solution and an enrichment pipeline that performs Sentiment Analysis on social media posts.

You need to define a knowledge store that will include the social media posts and the Sentiment Analysis results. Which two fields should you include in the definition? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

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

**Answer: BE**

**Explanation:**

BE is the answer.

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

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

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

**Question: 206**

SIMULATION -

Use the following login credentials as needed:

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

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

Azure Username: [email protected] -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

Task -

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

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

**Answer:**

See explanation below.

### Explanation:

[email protected] = admin@abc.com

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

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

The screenshot shows the 'Import data' wizard interface. At the top, there are tabs: 'Connect to your data' (which is active and highlighted in purple), 'Enrich content (Optional)', 'Customize target index', and 'Create an indexer'. Below these tabs, a descriptive text states: 'Create and load a search index using data from an existing Azure data source in your current subscription. Azure Cognitive Search crawls the data structure you provide, extracts searchable content, optionally enriches it with cognitive skills, and loads it into an index.' A link to 'Learn more' is provided. The main configuration area has two rows. The first row contains 'Data Source' followed by a dropdown menu with 'Samples' selected, circled with a red number 1. The second row contains 'Type' (with icons for 'SQL' and 'NoSQL') and 'Name' (with the value 'realestate-us-sample'). The second row is circled with a red number 2. The third row contains 'Type' (with icon for 'NoSQL') and 'Name' (with the value 'hotels-sample').

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

Step 2 - Skip the "Enrich content" page

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

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

Step 3 - Configure index -

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

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

**Import data**

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

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

Index name *	hotels-sample-index							
Key *	HotellId							
Suggester name	sg							
Search mode								
+ Add field	+ Add subfield							
Field name	Type	Retrievable	Filterable	Sortable	Facetable	Searchable	Analyzer	Suggester
HotellId	Edm.String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	English - Microsoft	<input type="checkbox"/>
HotelName	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	English - Microsoft	<input type="checkbox"/>
Description	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	English - Microsoft	<input type="checkbox"/>

Reference:

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

**Question: 207**

CertyIQ

HOTSPOT

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

```

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

```

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

NOTE: Each correct selection is worth one point.

#### Answer Area

There will be [answer choice].

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

Normalized images will [answer choice].

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

**Answer:**

## Answer Area

There will be [answer choice].

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

Normalized images will [answer choice].

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

### Explanation:

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

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

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

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

## Question: 208

CertyIQ

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

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

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

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

Which attributes should you enable for the field?

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

### Answer: D

### Explanation:

D is the answer.

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

- retrievable

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

- searchable

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

CertyIQ

## Question: 209

You have the following data sources:

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

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

What should you do?

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

### Answer: A

#### Explanation:

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

CertyIQ

## Question: 210

HOTSPOT

-

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

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

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

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

ComputerVision
CustomVision.Prediction
CustomVision.Training
FormRecognizer

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

Answer:

## Answer Area

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

ComputerVision
CustomVision.Prediction
CustomVision.Training
FormRecognizer

"eastus", "S1")
"useast", "S1")
<b>"S0", "eastus")</b>
"S0", "useast")

## Question: 211

CertyIQ

HOTSPOT

You have an app named App1 that uses Azure AI Document Intelligence to analyze medical records and provide pharmaceutical dosage recommendations for patients.

You send a request to App1 and receive the following response.

```
{
  "status": "succeeded",
  "createdDateTime": "2023-09-14T21:01:02Z",
  "lastUpdatedDateTime": "2023-09-14T21:01:03Z",
  "analyzeResult": {
    "apiVersion": "2023-07-31",
    "modelId": "prebuilt-healthInsuranceCard.us",
    "stringIndexType": "utf16CodeUnit",
    "content": "Blood Pressure 118/72",
    "pages": [
      {
        ...
      }
    ],
    "words": [
      ...
    ]
  }
}
```

```
    ...
    {
        "content": "Blood",
        "polygon": [ ... ],
        "confidence": 0.766,
        "span": { ... }
    },
    {
        "content": "Pressure",
        "polygon": [ ... ],
        "confidence": 0.716,
        "span": { ... }
    },
    {
        "content": "118/72",
        "polygon": [ ... ],
        "confidence": 0.761,
        "span": { ... }
    }
],
...
"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 checked="" type="radio"/>	<input type="radio"/>

Explanation:

No

Yes

Yes

### Question: 212

CertyIQ

HOTSPOT

-

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

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

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

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

## Answer Area

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

AnalyzeDocumentOperation operation = await client.AnalyzeDocumentFromUriAsync(WaitUntil.Completed,
    AnalyzeResult result = operation.Value;
    foreach (DocumentStyle style in result.Styles)
    {
        bool isHandwritten = style.IsHandwritten.HasValue && style.IsHandwritten == true;
        if (isHandwritten && style.Confidence >  )
            
            0.75
            1.0
        Console.WriteLine($"Handwritten content found:");
        foreach (DocumentSpan span in style.Spans)
```

fileUri);  
"prebuilt-document ",  
"prebuilt-contract",  
"prebuilt-read".

## 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 >  )
            
            0.75
            
        Console.WriteLine($"Handwritten content found:");
        foreach (DocumentSpan span in style.Spans)
```

fileUri);  
"prebuilt-document ",  
"prebuilt-contract",  
"prebuilt-read".

## Question: 213

CertyIQ

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

### Explanation:

Add the additional contract format to the existing training set. Retrain the model.

**Question: 214**

HOTSPOT

-

You have an Azure subscription.

You need to deploy an Azure AI Document Intelligence resource.

How should you complete the Azure Resource Manager (ARM) template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

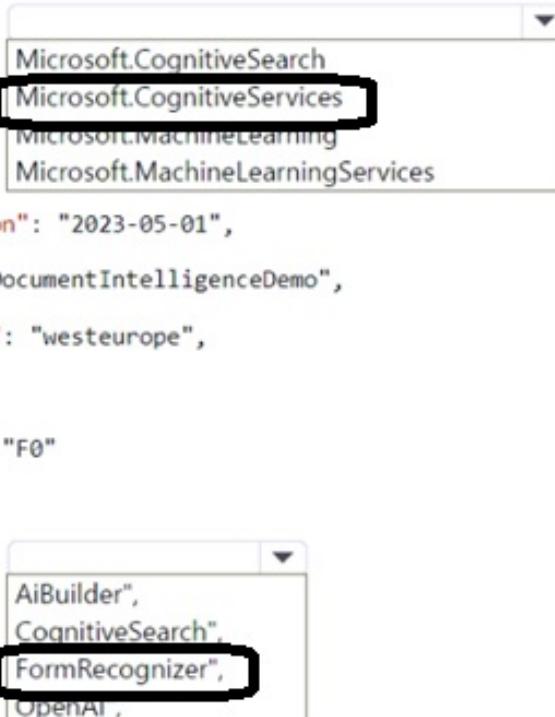
**Answer Area**

```
"$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {},
"variables": {},
"resources": [
{
  "type": "Microsoft.DocumentIntelligence/accounts",
  "apiVersion": "2023-05-01",
  "name": "DocumentIntelligenceDemo",
  "location": "westeurope",
  "sku": {
    "name": "F0"
  },
  "kind": "AiBuilder",
  "CognitiveSearch",
  "FormRecognizer",
  "OpenAI",
}
]
```

**Answer:**

## Answer Area

```
$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {},
"variables": {},
"resources": [
{
  "type": "Microsoft.CognitiveServices",
  "apiVersion": "2023-05-01",
  "name": "DocumentIntelligenceDemo",
  "location": "westeurope",
  "sku": {
    "name": "F0"
  },
  "kind": "FormRecognizer",
  "dependsOn": []
}
]
```



The image shows two dropdown menus from the Azure portal. The top menu is labeled 'type:' and contains four options: Microsoft.CognitiveSearch, Microsoft.CognitiveServices (which is selected and highlighted with a red box), Microsoft.MachineLearning, and Microsoft.MachineLearningServices. The bottom menu is labeled 'kind:' and contains five options: AiBuilder, CognitiveSearch, FormRecognizer (which is selected and highlighted with a red box), and OpenAI.

## Question: 215

CertyIQ

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

**Answer: C**

**Explanation:**

Correct answer is C:invoice.

Reference:

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

**Question: 216**

CertyIQ

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:**

Export the data in Finance to Azure Data Lake Storage.

**Question: 217**

CertyIQ

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**

**Explanation:**

the prebuilt receipt model.

CertyIQ

**Question: 218**

HOTSPOT

-

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**

### Question: 219

CertyIQ

HOTSPOT

-

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 "Key1" : {yourkey}" --data-ascii "{'urlSource': 'test.pdf'}"  
-H "Ocp-Apim-Subscription-Key" : Secret  
-H "Subscription-Key" : Subscription-Key
```

prebuilt-contract  
prebuilt-document  
prebuilt-layout  
prebuilt-read

Answer:

**Answer Area**

```
curl -v -i POST "{endpoint}/formrecognizer/documentModels/" :analyze?api-version=2023-07-31" -H "Content-Type: application/json"  
-H "Ocp-Apim-Subscription-Key: {yourkey}" --data-ascii "{\"urlSource": \"test.pdf\"}"  
  
[{"id": 1, "name": "prebuilt-contract"}, {"id": 2, "name": "prebuilt-document"}, {"id": 3, "name": "prebuilt-layout"}, {"id": 4, "name": "prebuilt-read"}]
```

**Question: 220****CertyIQ**

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:**

Correct answer is C. Azure AI Document Intelligence 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 Form Recognizer) 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 Cognitive 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.

**Question: 221****CertyIQ**

HOTSPOT

-

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

### Question: 222

CertyIQ

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:**

File1 and File2 only.

**CertyIQ**

**Question: 223**

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: B**

**Explanation:**

File2.jpg only.

**CertyIQ**

**Question: 224**

HOTSPOT

-

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

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

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

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

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-document",  
        prebuilt_contract="prebuilt-contract",  
        prebuilt_read="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]))
```

## 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-document",  
        prebuilt_contract="prebuilt-contract",  
        prebuilt_read="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]))
```

**Question: 225**

DRAG DROP

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:****Answer Area**

Upload five sample documents.

Create a custom model project and link the project to sa1.

Apply labels to the sample documents.

Train and test the model.

**Question: 226**

DRAG DROP

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****Answer Area**

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:****Answer Area**

Retrieve the access key for sa1.

Upload the forms and JSON files to blob1.

Call the Build model REST API function.

Call the Get model REST API function.

**Question: 227****CertyIQ**

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: A****Explanation:**

Upgrade the business card model to v3.0.

**Question: 228****CertyIQ**

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:**

Reference:

<https://github.com/MicrosoftDocs/bot-docs/blob/live/articles/bot-service-quickstart-registration.md>

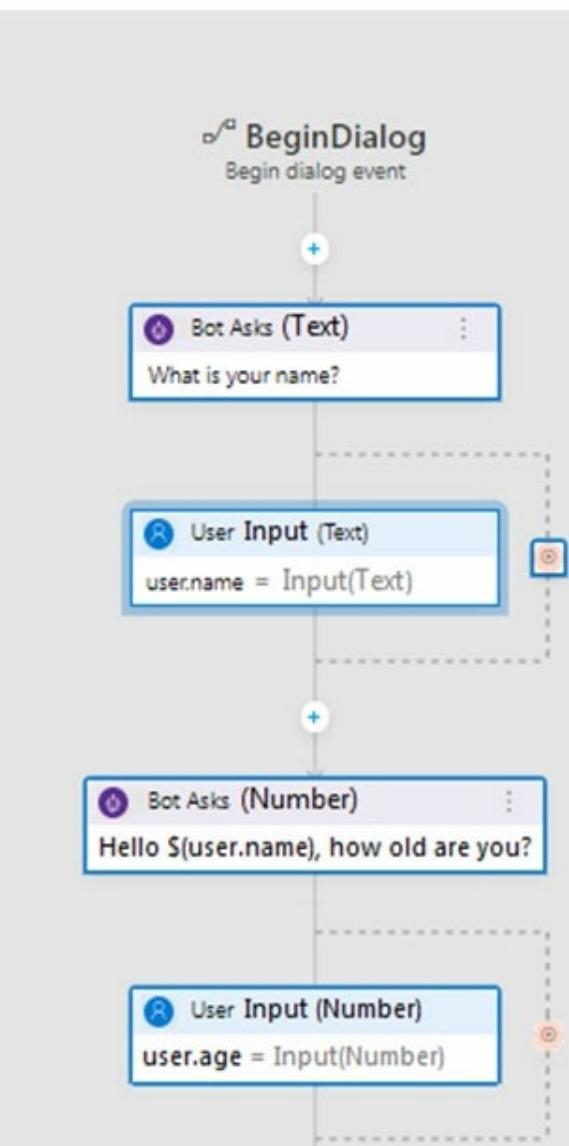
### Question: 229

CertyIQ

HOTSPOT -

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

You have the dialog design shown in the following exhibit.

**Prompt for text****Text input**

Collection information - Ask for a word or sentence.

[Learn more](#)**Bot Asks****User Input****Other****Property** ?

string

user.name

**Output Format** ?

string

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

**Value** ?

expression

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

Expected responses (intent:

#TextInput\_Response\_GH5FTe)

&gt;

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

NOTE: Each correct selection is worth one point.

Hot Area:

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

user.name is an entity.

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

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

**Answer:**

## Answer Area

### Statements

Yes      No

user.name is an entity.

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.

#### 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/coalescefuction>

## Question: 230

CertyIQ

You are building a multilingual chatbot.

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

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

NOTE: Each correct selection is worth one point.

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

#### Answer: BD

#### Explanation:

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

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

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

#### Reference:

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

**Question: 231**

DRAG DROP -

You plan to build a chatbot to support task tracking.

You create a Language Understanding service named lu1.

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

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

Select and Place:

**Actions**

Train the application.

Publish the application.

Add a new application.

Add example utterances.

Add the prebuilt domain ToDo.

**Answer Area**

Answer:

**Actions**

Train the application.

Publish the application.

Add a new application.

Add example utterances.

Add the prebuilt domain ToDo.

**Answer Area**

Add a new application.

Add example utterances.

Train the application.

Publish the application.

**Explanation:**

Step 1: Add a new application -

Create a new app -

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

Step 2: Add example utterances.

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

Step 3: Train the application -

Step 4: Publish the application -

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

prediction endpoint.

Reference:

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

## Question: 232

CertyIQ

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

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

What should you do first?

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

## Answer: B

### Explanation:

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

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

What is translated?

An .lu file and optionally translate

Comments in the lu file -

LU reference link texts -

List of .lu files under a specific path.

Reference:

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

## Question: 233

CertyIQ

DRAG DROP -

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

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

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

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

Select and Place:

## **Actions**

- 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 Area**

### **Answer:**

#### **Actions**

- 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 Area**

- Enable active learning.
- Validate the utterances logged for review and modify the model.
- Train and republish the Language Understanding model.

### **Explanation:**

Step 1: Enable active learning.

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

Step 3: Train and republish the language understanding model.

### **Question: 234**

You build a conversational bot named bot1.

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

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

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

**Answer: C**

**Explanation:**

Obtain values to connect your bot to the knowledge base

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

Reference:

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

**Question: 235**

**CertyIQ**

**HOTSPOT -**

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

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

**Statements**

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

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 -

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: No

The code is written to send a welcome message only to the newly added user (member.Id != turnContext.Activity.Recipient.Id ensures this). Existing users will not see this greeting.

OnMembersAddedAsync will be initialized when a user sends a message.

Box 3: No -

The OnMembersAddedAsync method is only triggered when a new member is added to the conversation. It is not triggered by regular messages sent by users.

### Question: 236

CertyIQ

HOTSPOT -

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

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

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

**Answer:**

## Answer Area

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

### Explanation:

Box 1: No -

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

- \$ welcomeUser(user.name)

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

- \$ welcomeUser()

Box 2: Yes-

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

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

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

Box 3: Yes -

Reference:

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

## Question: 237

CertyIQ

HOTSPOT -

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

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

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

The state storage mechanism is set to Memory Storage.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
The code will create and maintain the <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>

Question: 238

CertyIQ

HOTSPOT -

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

## **Passengers**

Sarah Hum

Jeremy Goldberg

Evan Litvak

**2 Stops**

**Tue, May 30, 2017 10:25 PM**

San Francisco

Amsterdam



San Francisco

Amsterdam

SFO

AMS

SFO

AMS

**Non-Stop**

**Fri, Jun 2, 2017 11:55 PM**

San Francisco

Amsterdam



San Francisco

Amsterdam

SFO

AMS

SFO

AMS

Total

**\$4,032.54**

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

The chatbot is showing [answer choice].

an Adaptive Card
a Hero Card
a Thumbnail Card

The card includes [answer choice].

an action set
an image
an image group
media

Answer:

## Answer Area

The chatbot is showing [answer choice].

an Adaptive Card
a Hero Card
a Thumbnail Card

The card includes [answer choice].

an action set
an image
an image group
media

Explanation:

### Box 1: Adaptive Card

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

- AdaptiveCard

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

### Box 2: an image -

**Question: 239**

HOTSPOT -

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

You have a LUDown file that contains the following content.

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

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

## Logout
- forget me
- log out

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

## SelectNone
- none

@ ml DirectionalReference
@ prebuilt personName
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

SelectItem is [answer choice].

a domain
an entity
an intent
an utterance

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

a domain
an entity
an intent
an utterance

Answer:

## Answer Area

SelectItem is [answer choice].

a domain
an entity
an intent
an utterance

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

a domain
an entity
an intent
an utterance

Explanation:

1. intent

2. utterance

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

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

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

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

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

Reference:

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

### Question: 240

CertyIQ

HOTSPOT -

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

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

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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

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

```
bot: [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!
```

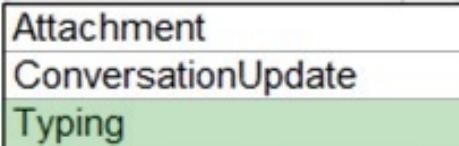
```
[adaptivecard  
carousel  
list]]
```

Answer:

## Answer Area

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

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

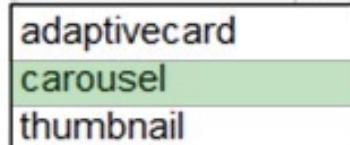


```
bot: I can help you with that! Let me see what I can find.
```

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

```
bot:
```

```
[AttachmentLayout= ]
```



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

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

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

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

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

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

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



### Explanation:

1. Typing
2. carousel
3. adaptivecard

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

- CardCarousel

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

- AdaptiveCard

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

### Reference:

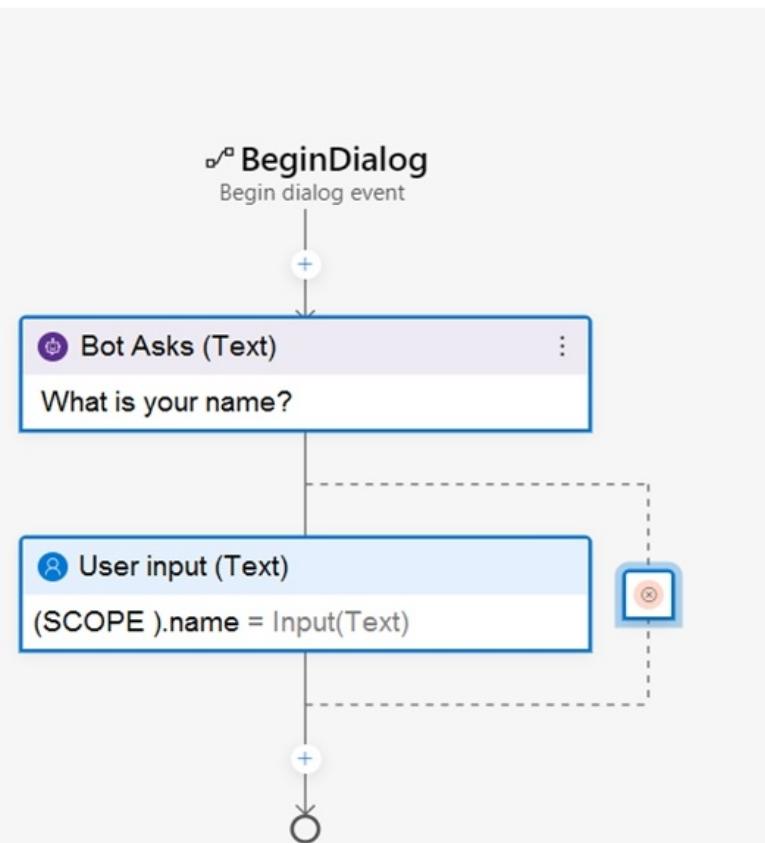
<https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-add-media-attachments?view=azure-bot-service-4.0>

**Question: 241**

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

GetUserDetails > BeginDialog > Text

Show code

**Prompt for text**

Text Input

Collection information - Ask for a word or sentence.

[Learn more](#)

Bot Asks

User input

Other

Property [?](#)

string

(SCOPE).name

Output format [?](#)

string

Value [?](#)

string

Expected responses (intent :

#TextInput\_Response\_FuvyF4)

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

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

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

Which scope should you assign to name?

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

**Answer: A****Explanation:**

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

Incorrect Answers:

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

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

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

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

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

Reference:

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

## Question: 242

CertyIQ

DRAG DROP -

You have a chatbot that uses a QnA Maker application.

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

You need to integrate user input into the model.

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

Select and Place:

### Actions

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 Area



Answer:

## Actions

Add a task to the Azure resource.

## Answer Area

For the knowledge base, select Show active learning suggestions.

Approve and reject suggestions.

Save and train the knowledge base.

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



Publish the knowledge base.



Select the properties of the Azure Cognitive Services resource.

### Explanation:

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

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

Step 2: Approve and reject suggestions.

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

"

add the question.

Step 3: Save and train the knowledge base.

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

Step 4: Publish the knowledge base.

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

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

### Reference:

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

## Question: 243

CertyIQ

You need to enable speech capabilities for a chatbot.

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

NOTE: Each correct selection is worth one point.

- A. Enable WebSockets for the chatbot app.

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

**Answer: ABC**

**Explanation:**

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

- B. Create a Speech service

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

- A. Enable WebSockets for the chatbot app

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

- C. Register a Direct Line Speech channel

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

**Question: 244**

**CertyIQ**

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

What should you add to the bot?

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

**Answer: C**

**Explanation:**

C is the answer.

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

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

## Question: 245

CertyIQ

### 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 [email protected] account.

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

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

### Answer:

See explanation below.

### Explanation:

[email protected] = admin@abc.com

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

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

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

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

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

[Create Bot](#)

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

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

[Postman](#)    [Curl](#)

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

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

[Edit Service](#)

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

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

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

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

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

[Create Bot](#)

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

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

Postman    Curl

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

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

[Edit Service](#)

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

Bot name: bot12345678 -

The bot will be created.

Reference:

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

## Question: 246

CertyIQ

SIMULATION -

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

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

### Answer:

See explanation below.

### Explanation:

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



## Sign in

to continue to Microsoft Azure

Email, phone, or Skype

---

No account? [Create one!](#)

[Can't access your account?](#)

[Next](#)

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



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

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

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

### Legal Notice

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

**Create**

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

Name: QNA12345678 -

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

Resource Group Location: East US Azure

## Create



QnA Maker

\* Name

myqnamakerservice



\* Subscription

team



\* Pricing tier ([View full pricing details](#))

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



\* Resource group

(New) myqnamakerservice



[Create new](#)

\* Resource group location

(US) Central US



\* Search pricing tier ([View full pricing details](#))

B (15 Indexes)



\* Search location

West US



\* App name

myqnamakerservice



.azurewebsites.net



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

\* Website location

West US



App insights

[Enable](#)

[Disable](#)

Step 4: After all the fields are validated, select Create. The process can take a few minutes to complete. After deployment is completed, you'll see the following resources created in your subscription:

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

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

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

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

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

Azure QnA service: QNA12345678 -

**STEP 2 Connect your QnA service to your KB.**

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

**Refresh**

\* Microsoft Azure Directory ID

Microsoft

\* Azure subscription name

documentationteam

\* Azure QnA service

qna-maker-10

\* Language

English

Step 9: In Step 3, name your knowledge base

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

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

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

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

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

**Reference:**

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

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

**CertyIQ****Question: 247****SIMULATION -**

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

The answer must be: 'Windows 11'.

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

**Answer:**

Answer: Windows 11

**Explanation:**

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

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

## Knowledge base

Question	Answer
How do I get the Surface Pro repaired?	Repairing the Surface Pro requires... + Add follow-up prompt

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>

**CertyIQ****Question: 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: [email protected] -

Azure Password: XXXXXXXXXXXX -

The following information is for technical support purposes only:

Lab Instance: 12345678 -

**Task -**

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

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

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

**Answer:**

See explanation below.

**Explanation:**

[email protected] = admin@abc.com

Create the resource -

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

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



## Azure Bot

Microsoft

### Azure Service

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

---

Create ▼



5. Select Create.

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

## Pricing

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

Pricing tier \*

Standard

[Change plan](#)

## Microsoft App ID

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

Type of App

User-Assigned Managed Identity



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

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

[Manually create a User Managed Identity](#)

Creation type

Create new Microsoft App ID

Use existing app registration

7. Select Review + create.

8. If the validation passes, select Create.

9. Once the deployment completes, select Go to resource. You should see the bot and related resources listed in the resource group you selected.

10. Enter the endpoint of the Bot Framework SDK: <https://bot.contoso.com/api/messages>

Reference:

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

## Question: 249

CertyIQ

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

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

The solution must minimize dialog complexity.

Which type of dialog should you use?

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

**Answer: C**

**Explanation:**

C. waterfall

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

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

**Question: 250**

CertyIQ

DRAG DROP

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

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

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

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

**Actions**

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

**Answer Area**

1		▲
2		▼
3		

**Answer:**

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

### Explanation:

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

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

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

### Question: 251

CertyIQ

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

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

What should you use?

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

### Answer: B

### Explanation:

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

### Question: 252

CertyIQ

HOTSPOT

-

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

You prepare app1 for deployment.

You need to deploy app1 to Azure.

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

NOTE: Each correct selection is worth one point.

#### Answer Area

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
<ul style="list-style-type: none"><li>bot</li><li>functionapp</li><li>vm</li><li>webapp</li></ul>	<ul style="list-style-type: none"><li>config</li><li>config-local-git</li><li>config-zip</li></ul>	

#### Answer:

##### Answer Area

az	deployment source	--resource-group "RG1" --name "app1" --src "app1.zip"
<ul style="list-style-type: none"><li>bot</li><li>functionapp</li><li>vm</li><li>webapp</li></ul>	<ul style="list-style-type: none"><li>config</li><li>config-local-git</li><li>config-zip</li></ul>	

#### Explanation:

webapp

config-zip

See command

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

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

#### Question: 253

CertyIQ

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

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

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

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

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

Solution: From Language Studio, you change the chitchat source to qna\_chitchat\_friendly.tsv, and then retrain and republish the model.

Does this meet the goal?

- A. Yes
- B. No

#### Answer: B

**Explanation:**

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

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

**Question: 254****CertyIQ**

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

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

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer: B****Explanation:**

No, this solution does not meet the goal.

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

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

**Question: 255****CertyIQ**

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

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

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

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

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

Solution: From Language Studio, you change the chitchat source to qna\_chitchat\_professional.tsv, and then retrain and republish the model.

Does this meet the goal?

A.Yes

B.No

**Answer: A**

**Explanation:**

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

**Question: 256**

CertyIQ

You create five bots by using Microsoft Bot Framework Composer.

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

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

NOTE: Each correct selection is worth one point.

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

**Answer: BCF**

**Explanation:**

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

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

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

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

### Question: 257

CertyIQ

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

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

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

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

You upload Doc1.pdf and train the model.

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

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

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

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

Does this meet the goal?

- A.Yes
- B.No

### Answer: A

#### Explanation:

A is the answer.

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

### Question: 258

CertyIQ

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

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

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

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

You upload Doc1.pdf and train the model.

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

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

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

**Question: 259**

CertyIQ

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

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

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

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

You upload Doc1.pdf and train the model.

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

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

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

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

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

No

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

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

## Question: 260

CertyIQ

You have a Conversational Language Understanding model.

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

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

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

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

**Answer: B**

**Explanation:**

by month

### **Question: 261**

**CertyIQ**

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

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

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

NOTE: Each correct selection is worth one point.

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

**Answer: DE**

**Explanation:**

- D.an adaptive card
- E.a dialog

### **Question: 262**

**CertyIQ**

You are building a chatbot.

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

Which type of dialog should you use?

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

**Answer: C**

**Explanation:**

C is the answer.

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

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

- waterfall dialog

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

### Question: 263

CertyIQ

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

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

Which type of channel should you use?

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

#### Answer: C

#### Explanation:

C is the answer.

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

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

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

### Question: 264

CertyIQ

You are building a bot by using Microsoft Bot Framework.

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

What should you do?

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

**Answer: A****Explanation:**

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

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

**CertyIQ****Question: 265**

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

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

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

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

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

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

Does this meet the goal?

A.Yes

B.No

**Answer: B****Explanation:**

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

To solve the issue, change the chitchat source to qna\_chitchat\_professional.tsv

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

**CertyIQ****Question: 266**

HOTSPOT

-

You are building a chatbot.

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

Section:

Classification  
pii  
Terms

Category:

1  
2  
3

Answer:

## Answer Area

Section:

Classification  
pii  
Terms

Category:

1  
2  
3

Explanation:

1. Classification

2.1

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

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

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

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

### Question: 267

CertyIQ

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

Which type of dialog should you use?

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

#### Answer: A

#### Explanation:

A is the answer.

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

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

- prompt dialogs

Ask the user for input and return the result. A prompt will repeat until it gets valid input or it's canceled. They're designed to work with waterfall dialogs.

### Question: 268

CertyIQ

You are building a chatbot.

You need to configure the chatbot to query a knowledge base.

Which dialog class should you use?

- A.QnAMakerDialog
- B.AdaptiveDialog
- C.SkillDialog

**Answer: A****Explanation:**

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

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

- QnA Maker dialog

Automates access to a QnA Maker knowledge base. This dialog is designed to also work as an action within Composer.

**Question: 269****CertyIQ**

HOTSPOT

-

You have a chatbot.

You need to ensure that the bot conversation resets if a user fails to respond for 10 minutes.

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

NOTE: Each correct selection is worth one point.

**Answer Area**

```
...
if now_seconds != last_access and (now_seconds - last_access >= self.expire_after_seconds):
    await turn_context. 
        .on_send_activities()
        .send_activity()
        .send_trace_activity()
        .update_activity()

    "Welcome back! Let's start over from the beginning."
)
await self.conversation_state. 
    ...
    .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:

1. send\_activity

2. clear\_state

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-howto-expire-conversation?view=azure-bot-service-4.0&tabs=python#user-interaction-expiration>

# Notify the user that the conversation is being restarted.

- await turn\_context.send\_activity()

# Clear state.

- await self.conversation\_state.clear\_state(turn\_context)

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-howto-expire-conversation?view=azure-bot-service-4.0&tabs=python>

## Question: 270

CertyIQ

You develop a Conversational Language Understanding model by using Language Studio.

During testing, users receive incorrect responses to requests that do NOT relate to the capabilities of the model.

You need to ensure that the model identifies spurious requests.

What should you do?

- A. Enable active learning.
- B. Add entities.
- C. Add examples to the None intent.
- D. Add examples to the custom intents.

### Answer: C

### Explanation:

C is the answer.

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

The None intent is also treated like any other intent in your project. If there are utterances that you want predicted as None, consider adding similar examples to them in your training data. For example, if you would like to categorize utterances that are not important to your project as None, such as greetings, yes and no answers, responses to questions such as providing a number, then add those utterances to your intent. You should also consider adding false positive examples to the None intent. For example, in a flight booking project it is likely that the utterance "I want to buy a book" could be confused with a Book Flight intent. Adding "I want to buy a book" or "I love reading books" as None training utterances helps alter the predictions of those types of utterances towards the None intent instead of Book Flight.

### Question: 271

CertyIQ

You have a Speech resource and a bot that was built by using the Microsoft Bot Framework Composer.

You need to add support for speech-based channels to the bot.

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

NOTE: Each correct selection is worth one point.

- A.Configure the language and voice settings for the Speech resource.
- B.Add the endpoint and key of the Speech resource to the bot.
- C.Add language understanding to dialogs.
- D.Add Orchestrator to the bot.
- E.Add Speech to the bot responses.
- F.Remove the setSpeak configuration.

### Answer: ABE

#### Explanation:

A. Configure the language and voice settings for the Speech resource.

This is necessary to ensure that the speech services can correctly interpret and generate speech in the desired language and voice.

B. Add the endpoint and key of the Speech resource to the bot.

This allows the bot to use the Speech resource for speech-to-text and text-to-speech capabilities.

E. Add Speech to the bot responses.

This is necessary to enable the bot to generate spoken responses to user input.

To add support for speech-based channels to a bot built with the Microsoft Bot Framework Composer, you should perform the following actions:

Add the endpoint and key of the Speech resource to the bot (B): You need to configure the bot to connect to the Speech resource, which will enable the bot to convert text into speech and vice versa.

Add Speech to the bot responses (E): You should update your bot's responses to include speech output. This is

important for speech-based channels, as the bot will need to generate spoken responses for users.

Configure the language and voice settings for the Speech resource (A): Configuring the language and voice settings in your Speech resource is important to ensure that the speech output is generated in the desired language and with the appropriate voice.

The other options (C, D, and F) are not directly related to adding support for speech-based channels and can be considered unrelated to this specific task.

## Question: 272

CertyIQ

DRAG DROP

You are building a bot.

You need to test the bot in the Bot Framework Emulator. The solution must ensure that you can debug the bot interactively.

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

Actions
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:

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



## Explanation:

1. In code, create new trace activity
2. In code, send a trace activity
3. Run bot app on local host

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

A trace activity is an activity that your bot can send to the Bot Framework Emulator. You can use trace activities to interactively debug a bot, as they allow you to view information about your bot while it runs locally.

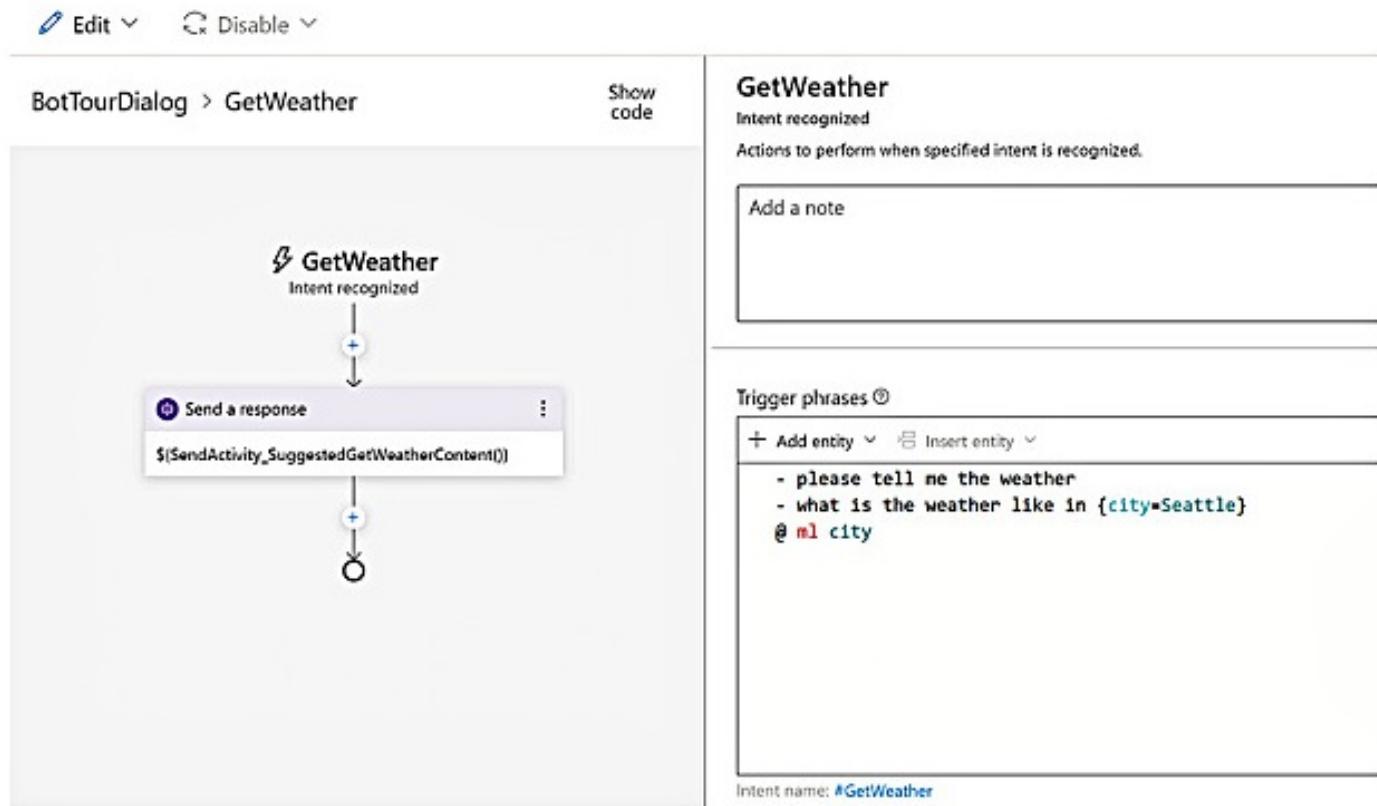
Trace activities are sent only to the Emulator and not to any other client or channel. The Emulator displays them in the log but not the main chat panel.

## Question: 273

CertyIQ

HOTSPOT

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



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

NOTE: Each correct selection is worth one point.

### Answer Area

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

change to a different dialog  
identify New York as a city entity  
identify New York as a state entity  
respond with the weather in Seattle

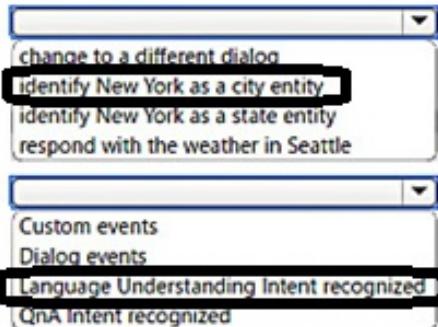
The GetWeather dialog uses a [answer choice] trigger.

Custom events  
Dialog events  
Language Understanding Intent recognized  
QnA Intent recognized

Answer:

## Answer Area

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



### Explanation:

1. identity New York as city entity
2. Language Understanding intent recognised

<https://learn.microsoft.com/en-us/composer/concept-language-understanding?tabs=v2x#entities>

Entities are a collection of objects, each consisting of data extracted from an utterance such as places, times, and people. Entities and intents are both important data extracted from utterances. An utterance may include zero or more entities, while an utterance usually represents one intent. In Composer, all entities are defined and managed inline. Entities in the .lu file format are denoted using <entityName>=<labelled value> notation.

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

## Question: 274

CertyIQ

You are building a flight booking bot by using the Microsoft Bot Framework SDK.

The bot will ask users for the departure date. The bot must repeat the question until a valid date is given, or the users cancel the transaction.

Which type of dialog should you use?

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

### Answer: A

### Explanation:

A is the answer.

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

The dialogs library provides a few types of dialogs to make your bot's conversations easier to manage.- prompt dialogsAsk the user for input and return the result. A prompt will repeat until it gets valid input or it's canceled. They're designed to work with waterfall dialogs.

## Question: 275

HOTSPOT

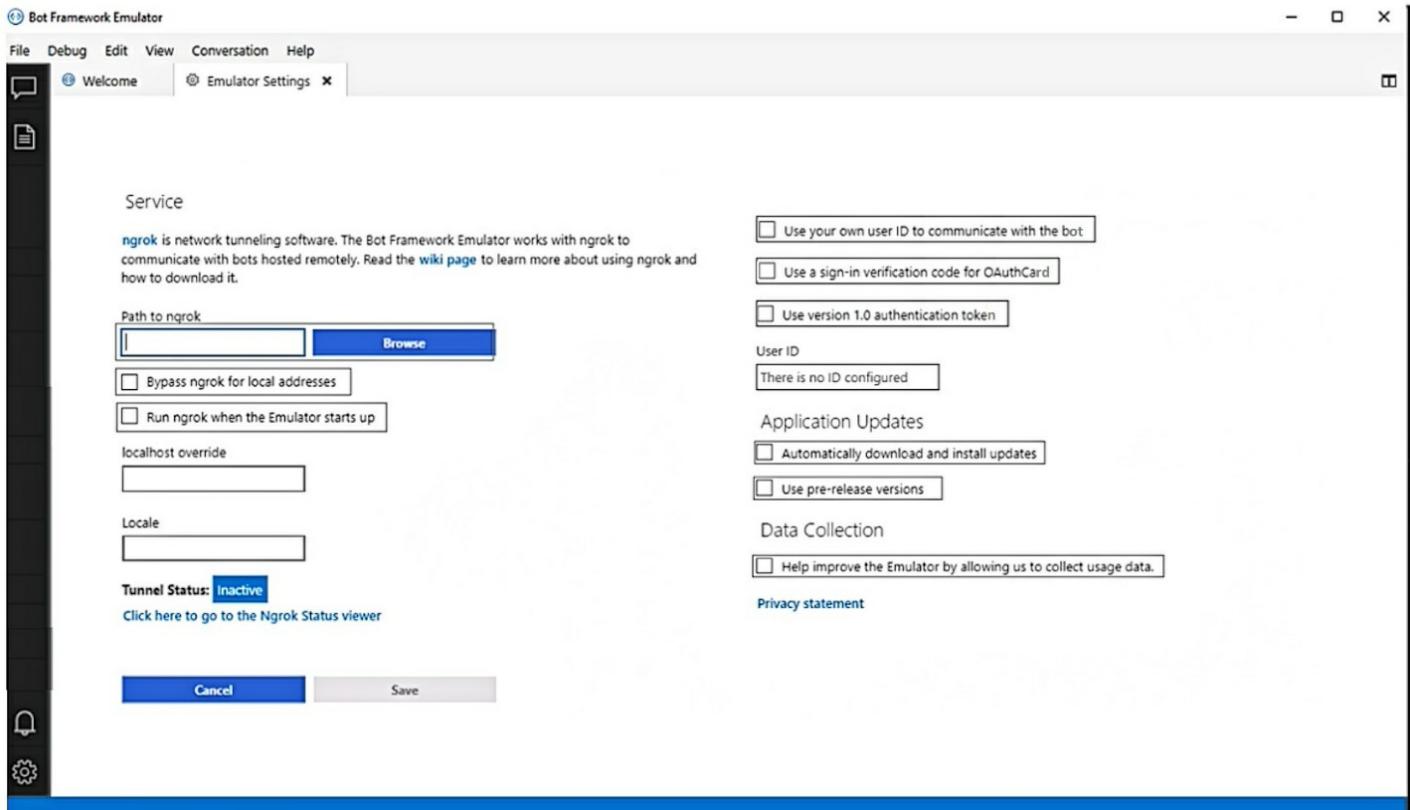
You have a chatbot.

You need to test the bot by using the Bot Framework Emulator. The solution must ensure that you are prompted for credentials when you sign in to the bot.

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

NOTE: Each correct selection is worth one point.

### Answer Area



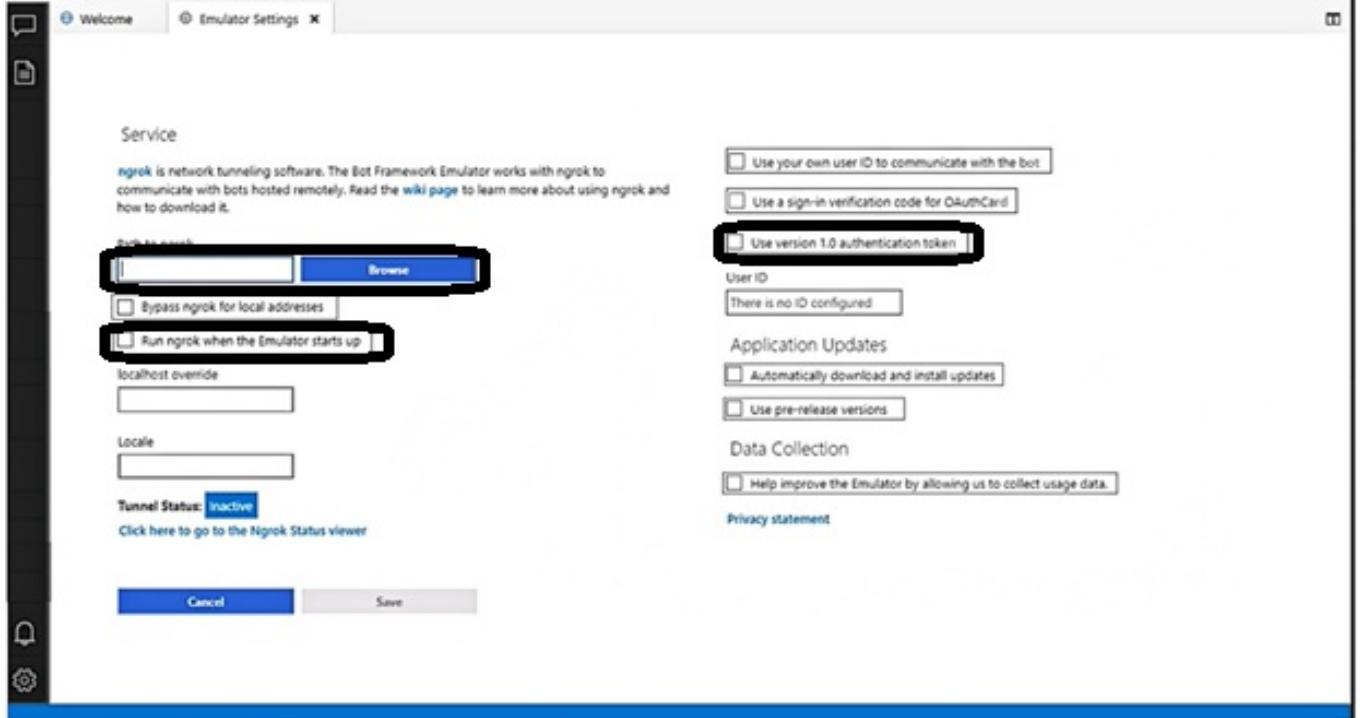
**Answer:**

**Answer Area**

Bot Framework Emulator

File Debug Edit View Conversation Help

Welcome Emulator Settings X

**Explanation:**

1. Enter the local path to ngrok.
2. Enable Run ngrok when the Emulator starts up.
3. Enable Use version 1.0 authentication tokens.

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

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

**Question: 276****CertyIQ**

HOTSPOT

-

You run the following command.

```
docker run --rm -it -p 5000:5000 --memory 10g --cpus 2 \
mcr.microsoft.com/azure-cognitive-services/textanalytics/language \
Eula=accept \
Billing={ENDPOINT_URI} \
ApiKey={API_KEY}
```

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

NOTE: Each correct selection is worth one point.

## Answer Area

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

Answer:

## Answer Area

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

Explanation:

NNY.

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

Keywords here are without causing an endpoint query. So the answer to the first point is No.

<https://learn.microsoft.com/en-us/azure/ai-services/language-service/text-analytics-for-health/how-to/use-containers?tabs=language#validate-that-a-container-is-running>

## Question: 277

CertyIQ

You build a bot.

You create an Azure Bot resource.

You need to deploy the bot to Azure.

What else should you create?

- A.only an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, an Azure App Service instance, and an App Service plan
- B.only an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra, an Azure Kubernetes Service (AKS) instance, and a container image
- C.only an Azure App Service instance, and an App Service plan
- D.only an Azure Machine Learning workspace and an app registration in Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra

**Answer: C**

**Explanation:**

C the correct answer as you can choose User-assigned Managed Identity to manage the identities of your bot. So in that case it is not necessary to create an app reg

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

**Question: 278**

**CertyIQ**

You are building a chatbot by using the Microsoft Bot Framework SDK. The bot will be used to accept food orders from customers and allow the customers to customize each food item.

You need to configure the bot to ask the user for additional input based on the type of item ordered. The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

- A.adaptive
- B.action
- C.waterfall
- D.prompt
- E.input

**Answer: CD**

**Explanation:**

- C.waterfall
- D.prompt

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

**Question: 279**

**CertyIQ**

HOTSPOT

-

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

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

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

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

The state storage mechanism is set to Memory Storage.

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

NOTE: Each correct selection is worth one point.

#### Answer Area

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

Answer:

#### Answer Area

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

Explanation:

Yes

Yes

No

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

<https://learn.microsoft.com/en-us/azure/bot-service/bot-builder-howto-v4-state?view=azure-bot-service-4.0&tabs=csharp>

#### Question: 280

CertyIQ

DRAG DROP -

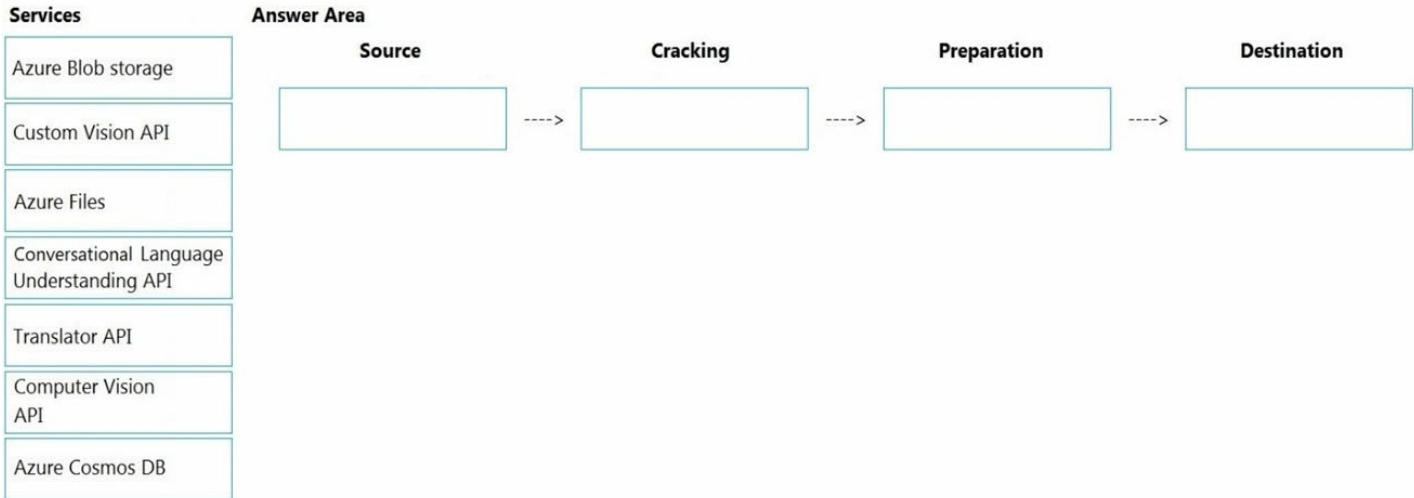
You are developing the smart e-commerce project.

You need to design the skillset to include the contents of PDFs in searches.

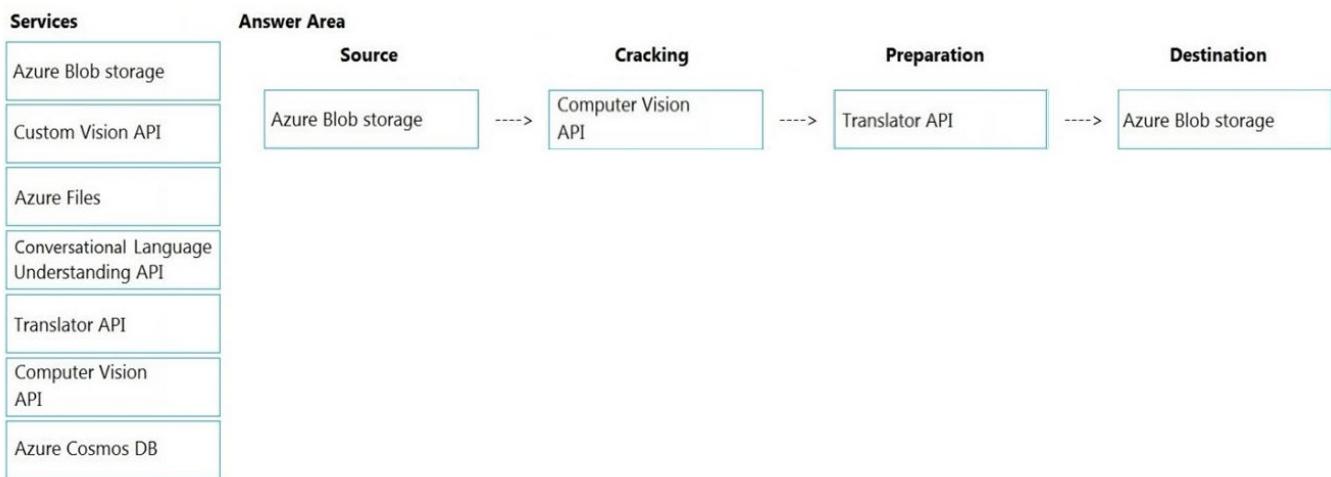
How should you complete the skillset design diagram? To answer, drag the appropriate services to the correct stages. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



### Answer:



### Explanation:

Box 1: Azure Blob storage -

At the start of the pipeline, you have unstructured text or non-text content (such as images, scanned documents, or JPEG files). Data must exist in an Azure data storage service that can be accessed by an indexer.

Box 2: Computer Vision API -

Scenario: Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

The Computer Vision Read API is Azure's latest OCR technology (learn what's new) that extracts printed text (in several languages), handwritten text (English only), digits, and currency symbols from images and multi-page PDF documents.

Box 3: Translator API -

Scenario: Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Box 4: Azure Blob storage -

There are 3 types of projection for azure search index. Azure storage table for structured projection , Objection projection as json in Blob and finally file projection i.e image in azure blob

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-concept-intro>

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

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

## Question: 281

CertyIQ

You are developing the chatbot.

You create the following components:

- ⇒ A QnA Maker resource
- ⇒ A chatbot by using the Azure Bot Framework SDK

You need to integrate the components to meet the chatbot requirements.

Which property should you use?

- A. QnAMakerOptions.StrictFilters
- B. QnADialogResponseOptions.CardNoMatchText
- C. QnAMakerOptions.RankerType
- D. QnAMakerOptions.ScoreThreshold

### Answer: D

### Explanation:

QnAMakerOptions.ScoreThreshold

Technical Requirements says "AI solution responses must have a confidence score that is equal to or greater than 70 percent" and "When the response confidence score is low, ensure that the chatbot can provide other response options to the customers"

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/confidence-score#set-threshold>

## Question: 282

CertyIQ

You are developing the chatbot.

You create the following components:

- ⇒ A QnA Maker resource
- ⇒ A chatbot by using the Azure Bot Framework SDK

You need to add an additional component to meet the technical requirements and the chatbot requirements.

What should you add?

- A. Microsoft Translator
- B. Language Understanding
- C. Orchestrator
- D. chatdown

### Answer: A

### Explanation:

If you need to support a knowledge base system, which includes several languages, you can:

1) Use the Translator service to translate a question into a single language before sending the question to your knowledge base. This allows you to focus on the quality of a single language and the quality of the alternate questions and answers.

2) Create a QnA Maker resource, and a knowledge base inside that resource, for every language. This allows you to manage separate alternate questions and answer text that is more nuanced for each language. This gives you much more flexibility but requires a much higher maintenance cost when the questions or answers change across all languages."

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/overview/language-support#supporting-multiple-languages-in-one-knowledge-base>

## Question: 283

CertyIQ

HOTSPOT

You build a chatbot by using Azure OpenAI Studio.

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

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

NOTE: Each correct answer is worth one point.

### Answer Area

#### Chat session

Clear chat  View code  Show raw JSON



Start chatting

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

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

#### Configuration

Deployment Parameters

Max response ⓘ 800

Temperature ⓘ 0.7

Top P ⓘ 0.9

Stop sequence ⓘ

Stop sequences

Frequency penalty ⓘ 0

Presence penalty ⓘ 0

[Learn more](#)

Current token count ⓘ

Input tokens progress indicator

1/4000

Answer:

## 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 ⓘ 0.7

Top P ⓘ 0.95

Stop sequence ⓘ

Stop sequences

Frequency penalty ⓘ 0

Presence penalty ⓘ 0

[Learn more](#)

Current token count ⓘ

Input tokens progress indicator

1/4000

### Question: 284

CertyIQ

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: A**

**Explanation:**

Configure the model to include data from the travel agent's database.

### Question: 285

CertyIQ

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**

**Explanation:**

- B.Provide grounding content.
- C.Add sample request/response pairs.

### **Question: 286**

**CertyIQ**

HOTSPOT

-

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

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

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

```
new ChatCompletionsOptions()  
{  
    Messages =  
    {  
        new ChatMessage(  
    },  
    , @""),  
    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  
    TokenSelectionBiasses  
  
    MaxTokens = 800,  
};
```

### Explanation:

#### 1. ChatRole.User

ChatRole.User is selected from a dropdown list.

This role represents input from the user in a chat-based AI interaction.

Other options include:

ChatRole.Assistant (AI-generated responses)

ChatRole.System (Instructions defining AI behavior)

ChatRole.Function (Calls to external functions)

#### 2. Temperature .

Temperature is a setting that controls the randomness of AI responses.

Selected from a dropdown list, it adjusts the creativity of responses:

Higher values (e.g., 1.0–1.5) → More creative and random responses.

Lower values (e.g., 0.1–0.3) → More predictable and deterministic responses.

In this case, Temperature = 1.0 means a balanced level of randomness.

### Question: 287

CertyIQ

DRAG DROP

-

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to build an app named App1 that will write press releases by using AI1.

You need to deploy an Azure OpenAI model for App1. The solution must minimize development effort.

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

#### Actions

- Create a deployment that uses the text-embedding-ada-002 model.
- Apply the Marketing Writing Assistant system message template.
- Apply the Default system message template.
- Create a deployment that uses the GPT-35 Turbo model.
- Deploy the solution to a new web app.

#### Answer Area

1	
2	
3	



### Answer:

#### Answer Area

- 1 Create a deployment that uses the GPT-35 Turbo model.
- 2 Apply the Marketing Writing Assistant system message template.
- 3 Deploy the solution to a new web app.

### Explanation:

Create a deployment that uses the GPT-35 Turbo model,

Apply the Marketing writing assistant system message template.

Deploy the Solution to a new web app.

### Question: 288

CertyIQ

HOTSPOT

-

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

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

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

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

NOTE: Each correct selection is worth one point.

## Answer Area

```
response = openai.ChatCompletion.create(  
    engine="dgw-aoai-gpt35",  
    messages = [{"role":  
        "assistant"  
        "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"  
        "function"  
        "system"  
        "user"  
    }, {"content":""}],  
    temperature=1,  
    Frequency_penalty  
    Presence_penalty  
    temperature  
    token_selection_biasses  
    max_tokens=800,  
    stop=None)
```

### Explanation:

#### 1. "user"

The role key defines the source of the message.

"user" is selected from a dropdown list, meaning this message comes from the human user.

Other options include:

"assistant" → AI-generated response.

"system" → Instructions guiding AI behavior.

"function" → Used when calling external functions.

#### 2.Temperature .

temperature controls the randomness of AI responses.

A higher temperature (e.g., 1.0–1.5) makes responses more creative and diverse.

A lower temperature (e.g., 0.1–0.3) makes responses more focused and deterministic.

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.

The text completion was truncated because the Max response tokens value was exceeded.

The prompt\_tokens value will be included in the calculation of the Max response tokens value.

### Answer:

#### Answer Area

#### Statements

The subscription will be charged 86 tokens for the execution of the session.

The text completion was truncated because the Max response tokens value was exceeded.

The prompt\_tokens value will be included in the calculation of the Max response tokens value.

### Explanation:

No

No

No

### Question: 290

CertyIQ

HOTSPOT

-

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to develop a console app that will answer user questions.

You need to call AI1 and output the results to the console.

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

NOTE: Each correct selection is worth one point.

### Answer Area

```
openai.api_key = key
```

```
openai.api_base = endpoint
```

```
response =
```

```
openai.ChatCompletion.create  
openai.Embedding.create  
openai.Image.create
```

```
engine=deployment_name,
```

```
prompt="What is Microsoft Azure?"
```

```
)
```

```
print
```

```
(response.choices[0].text)  
(response.id)  
(response.text)
```

**Answer:**

## 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)
```

## Question: 291

CertyIQ

HOTSPOT

You have an Azure subscription that contains an Azure OpenAI resource named AI1.

You plan to develop a console app that will answer user questions.

You need to call AI1 and output the results to the console.

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

NOTE: Each correct selection is worth one point.

## Answer Area

```
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);
```

## Question: 292

CertyIQ

HOTSPOT

-

You have an Azure subscription.

You need to create a new resource that will generate fictional stories in response to user prompts. The solution must ensure that the resource uses a customer-managed key to protect data.

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

NOTE: Each correct selection is worth one point.

## Answer Area

```
az cognitiveservices account create -n myresource -g myResourceGroup --kind
--sku S -l WestEurope
AIProperties
LanguageAuthoring
OpenAI
```

```
--api-properties
--assign-identity
--encryption

"keySource": "Microsoft.KeyVault",
"keyVaultProperties": {
    "keyName": "KeyName",
    "keyVersion": "secretVersion",
    "keyVaultUri": "https://issue23056kv.vault.azure.net/"
}
}'
```

## Answer:

### Answer Area

```
az cognitiveservices account create -n myresource -g myResourceGroup --kind
--sku S -l WestEurope
AIProperties
LanguageAuthoring
OpenAI
```

```
--api-properties
--assign-identity
--encryption

"keySource": "Microsoft.KeyVault",
"keyVaultProperties": {
    "keyName": "KeyName",
    "keyVersion": "secretVersion",
    "keyVaultUri": "https://issue23056kv.vault.azure.net/"
}
}'
```

## Explanation:

OpenAI.

encryption.

## Question: 293

CertyIQ

### HOTSPOT

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
{
    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,
...
};
```

You have an Azure subscription that is linked to a Microsoft Entra tenant. The subscription ID is x1xx11x1-x111-xxxx-xxxx-x111xxx11x1 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 1111a111a11a111aaa11a1a1a11aa. 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-x111xxx11x1
1111a111a11a111aaa11a1a1a11aa
1y1y1yyy-1y1y-y1y1-yy11-y1y1y11111y1");

OpenAIClient openAIClient = new (endpoint, credentials);
EmbeddingsOptions embeddingOptions = new EmbeddingsOptions(input_text_string);
var returnValue = openAIClient.GetEmbeddings("embeddings1
OpenAI1
text-embedding-ada-002

", embeddingOptions);

foreach (float item in returnValue.Value.Data[0].Embedding)
{
    Console.WriteLine(item);
}
```

Answer:

### Answer Area

```
Uri endpoint = new Uri("https://openai1.openai.azure.com");
AzureKeyCredential credentials = new AzureKeyCredential("x1xx11x1-x111-xxxx-xxxx-x111xxx11x1
1111a111a11a111aaa11a1a1a11aa
1y1y1yyy-1y1y-y1y1-yy11-y1y1y11111y1");

OpenAIClient openAIClient = new (endpoint, credentials);
EmbeddingsOptions embeddingOptions = new EmbeddingsOptions(input_text_string);
var returnValue = openAIClient.GetEmbeddings("embeddings1
OpenAI1
text-embedding-ada-002

", embeddingOptions);

foreach (float item in returnValue.Value.Data[0].Embedding)
{
    Console.WriteLine(item);
}
```

## Question: 295

CertyIQ

HOTSPOT

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

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

## Question: 296

CertyIQ

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**

**Explanation:**

Correct answer is C:embeddings.

## Question: 297

CertyIQ

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:**

Correct answer is C:JSONL.

**CertyIQ**

### Question: 298

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: A**

**Explanation:**

Correct answer is A:File1.tsv only.

**CertyIQ**

### Question: 299

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:**

Cognitive Services OpenAI Contributor permission: Upload datasets for fine-tuning.

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

### Question: 300

CertyIQ

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:**

correct answer is:A. text-embedding-ada-002Reasoning: 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.The other options (GPT-4, GPT-3.5 Turbo, and GPT-4-32k) are primarily designed for text generation and do not specialize in embedding-based similarity tasks.

### Question: 301

CertyIQ

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:**

A is correct. Cognitive Services OpenAI User permission: 1. View the resource endpoint under “Keys and Endpoint”. 2. View what models are available for deployment in Azure OpenAI Studio. 3. Use playground experiences with any models that have already been deployed to this Azure OpenAI resource.

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

**Question: 302**

**CertyIQ**

HOTSPOT

-

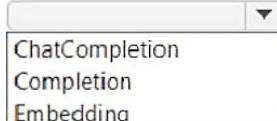
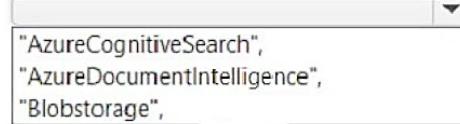
You have a chatbot that uses Azure OpenAI to generate responses.

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.

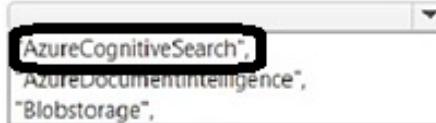
NOTE: Each correct selection is worth one point.

## Answer Area

```
completion = openai. .create(  
    ChatCompletion  
    Completion  
    Embedding  
  
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"),  
            ...  
        }  
    }  
]
```

## Answer:

### Answer Area

```
completion = openai. .create(  
    ChatCompletion  
    Completion  
    Embedding  
  
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"),  
            ...  
        }  
    }  
]
```

## Explanation:

Chat completion.

Azure Cognitive search.

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

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 produce the intended response.	<input checked="" type="radio"/>	<input type="radio"/>

### Explanation:

No

Yes

Yes

## Question: 304

CertyIQ

### Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

### To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

### Overview -

#### General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

### Existing environment -

#### Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

### Intellectual Property -

Contoso has the intellectual property shown in the following table.

<b>Content</b>	<b>Format</b>	<b>Language</b>	<b>Content store</b>	<b>Domain</b>
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

#### Requirements -

##### Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

##### Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

##### Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

##### Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

#### Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question HOTSPOT -

You build a QnA Maker resource to meet the chatbot requirements.

Which RBAC role should you assign to each group? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

#### Management-Accountants

<input type="checkbox"/>
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

#### Consultant-Accountants

<input type="checkbox"/>
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

#### Agent-CustomerServices

<input type="checkbox"/>
Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

**Answer:**

## Answer Area

Management-Accountants

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Consultant-Accountants

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

Agent-CustomerServices

Owner
Contributor
Cognitive Services User
Cognitive Services QnA Maker Read
Cognitive Services QnA Maker Editor

### Explanation:

Box 1: Cognitive Service User -

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Approve=publish.

Cognitive Service User (read/write/publish): API permissions: All access to Cognitive Services resource except for ability to:

1. Add new members to roles.

2. Create new resources.

Box 2: Cognitive Services QnA Maker Editor

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

QnA Maker Editor: API permissions:

1. Create KB API

2. Update KB API

3. Replace KB API

4. Replace Alterations

5. "Train API" [in new service model v5]

Box 3: Cognitive Services QnA Maker Read

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

QnA Maker Read: API Permissions:

1. Download KB API
2. List KBs for user API
3. Get Knowledge base details
4. Download Alterations

1. Cognitive Service User

2. QnA Maker Editor

3. QnA Maker Read

<https://learn.microsoft.com/en-us/azure/cognitive-services/qnamaker/concepts/role-based-access-control#access-is-provided-by-a-defined-role>

- Cognitive Service User (read/write/publish)
- QnA Maker Editor (read/write)
- QnA Maker Read (read)

Reference:

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

### Question: 305

CertyIQ

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:**

0: Non-offensive  
1-2: Very Low  
3-4: Low  
5-6: Moderate  
7-8: High  
9-10: Very High.

**CertyIQ**

**Question: 306**

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: CE**

**Explanation:**

C.Azure AI Content Safety.

E.Azure AI Custom Vision.

**CertyIQ**

**Question: 307**

HOTSPOT

-

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/ contentsafety/ healthinsights/ language/	completions embeddings text:analyze 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/ contentsafety/ healthinsights/ language/	completions embeddings text:analyze text/blocklists
--	--

## Explanation:

### Reference:

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

## Question: 308

CertyIQ

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

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

You have an Azure 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: A**

**Explanation:**

Yes: The solution involves using the "Protected material detection" feature from Content Safety Studio to optimize content filter configurations by running tests on sample questions. This approach meets the requirement for testing and optimizing content safety configurations for generative AI output, ensuring that objectionable content is properly detected and managed.

**Question: 309**

**CertyIQ**

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

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

You have an Azure 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 answer is A. Yes 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.

**Question: 310**

**CertyIQ**

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

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

appear in the review screen.

You have an Azure 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 answer is B. No 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.

**Question: 311**

CertyIQ

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

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

You have an Azure 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 answer is B. No. 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.

### Question: 312

CertyIQ

HOTSPOT

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.

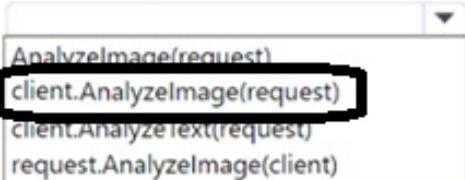
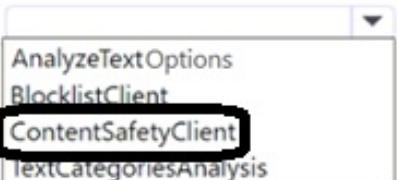
#### Answer Area

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

**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);
}
```



### Explanation:

ContentSafetyClient .

Client.AnalyzeImage(request).

CertyIQ

## Question: 313

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:

Reference:

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

CertyIQ

## Question: 314

HOTSPOT

-

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:

##### Reference:

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

#### Question: 315

CertyIQ

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:**

Reference:

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

## Question: 316

**CertyIQ**

Introductory Info Case study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

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To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

A company named Wide World Importers is developing an e-commerce platform.

You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

Existing Environment -

Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the

Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named `wwics`

An Azure Video Analyzer for Media (previously Video Indexer) resource named `wwivi`

Requirements -

Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

Product JSON Sample -

You have the following JSON sample for a product.

```
{  
    "sku": "bl",  
    "name": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
        "en": "Bicycle",  
        "es": "Bicicleta",  
        "pt": "Bicicleta"  
    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
            "en": "Bicycle",  
            "es": "Bicicleta",  
            "pt": "Bicicleta"  
        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

Question DRAG DROP -

You are planning the product creation project.

You need to recommend a process for analyzing videos.

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

Select and Place:

## **Actions**

## **Answer Area**

Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.

Upload the video to blob storage.

Analyze the video by using the Computer Vision API.

Extract the transcript from Microsoft Stream.

Send the transcript to the Language Understanding API as an utterance.

Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.

Translate the transcript by using the Translator API.

Upload the video to file storage.

**Answer:**

## Actions

Analyze the video by using the Computer Vision API.

Extract the transcript from Microsoft Stream.

Send the transcript to the Language Understanding API as an utterance.

Upload the video to file storage.

## Answer Area

Upload the video to blob storage.

Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.

Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.

Translate the transcript by using the Translator API.

### Explanation:

Scenario: All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

Step 1: Upload the video to blob storage

Given a video or audio file, the file is first dropped into a Blob Storage. T

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

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

Step 3: Extract the transcript from the Video Indexer API.

Step 4: Translate the transcript by using the Translator API.

### Reference:

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

## Question: 317

Introductory Info Case study -

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your time to ensure that you are able to complete all questions included on this exam in the time provided. To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study -

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#### Overview -

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You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

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#### Existing Environment -

##### Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

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- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named wwics

An Azure Video Analyzer for Media (previously Video Indexer) resource named wwivi

#### Requirements -

##### Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

##### Planned Changes -

Wide World Importers plans to start the following projects:

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A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

#### Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:  
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Whenever possible, scale based on transaction volumes to ensure consistent performance.  
Minimize costs.

#### Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:  
Data storage and processing must occur in datacenters located in the United States.  
Azure Cognitive Services must be inaccessible directly from the internet.

#### Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

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All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

#### Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

#### Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

#### Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

#### Product JSON Sample -

You have the following JSON sample for a product.

```

{
    "sku": "bl",
    "name": {
        "en": "Bicycle",
        "es": "Bicicleta",
        "pt": "Bicicleta"
    },
    "stocklevel": "Out of Stock",
    "description": {
        "en": "Bicycle",
        "es": "Bicicleta",
        "pt": "Bicicleta"
    },
    "image": {
        "uri": "https://upload.worldwideimporters.org/bicycle.jpg",
        "alttext": {
            "en": "Bicycle",
            "es": "Bicicleta",
            "pt": "Bicicleta"
        }
    },
    "createdUtc": "2020-02-14T06:08:39Z",
    "language": "en"
}

```

**Question HOTSPOT -**

You need to develop code to upload images for the product creation project. The solution must meet the accessibility requirements.

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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

```

public static async Task<string> SuggestAltText(ComputerVisionClient client,
{
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()
    {

```

image
Dictionary
stream
string

VisualFeatureTypes.Description
VisualFeatureTypes.ImageType
VisualFeatureTypes.Objects
VisualFeatureTypes.Tags

```

    };
    ImageAnalysis results = await client.AnalyzeImageAsync(image, features);

```

var c = results.Brands.DetectedBrands[0]
var c = results.Description.Captions[0]
var c = results.Metadata[0]
var c = results.Objects[0]

```

if(c.Confidence>0.5) return(c.Text);
}

```

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

```
public static async Task<string> SuggestAltText(ComputerVisionClient client,
{
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()
    {
        VisualFeatureTypes.Description
        VisualFeatureTypes.ImageType
        VisualFeatureTypes.Objects
        VisualFeatureTypes.Tags
    };
    ImageAnalysis results = await client.AnalyzeImageAsync(image, features);
    var c = results.Brands.DetectedBrands[0]
    var c = results.Description.Captions[0]
    var c = results.Metadata[0]
    var c = results.Objects[0]
    if(c.Confidence>0.5) return(c.Text);
}
```

Dictionary
stream
string

image)

**Explanation:**

1. string
2. VisualFeatureTypes.Description
3. results.Description.Captions[0]

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

The image description feature is part of the Analyze Image API. You can call this API through a native SDK or through REST calls. Include Description in the visualFeatures query parameter. Then, when you get the full JSON response, parse the string for the contents of the "description" section.

**Reference:**

<https://github.com/Azure-Samples/cognitive-services-dotnet-sdk-samples/blob/master/documentation-samples/quickstarts/ComputerVision/Program.cs>

**Question: 318****CertyIQ****Introductory Info Case study -**

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To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Contoso, Ltd. is an international accounting company that has offices in France, Portugal, and the United Kingdom. Contoso has a professional services department that contains the roles shown in the following table.

Name	Position	Office
Accountant	Manager	United Kingdom, France, Portugal
Accountant	Consultant	United Kingdom, France, Portugal
Customer Service	Manager	United Kingdom
Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
Bookkeeper	Consultant	United Kingdom, France, Portugal

Existing environment -

Infrastructure -

Contoso has the following subscriptions:

Azure

Microsoft 365

Microsoft Dynamics 365

Azure Active (Azure AD) Directory

Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

[Country]-[Level]-[Role]

[Level]-[Role]

Intellectual Property -

Contoso has the intellectual property shown in the following table.

<b>Content</b>	<b>Format</b>	<b>Language</b>	<b>Content store</b>	<b>Domain</b>
Weekly webinars	Video	English	Azure Blob storage	Vid.contoso.com
Blogs	Text	English, French, Portuguese	WordPress	Pt-blog.contoso.com Blog.contoso.com Fr-blog.contoso.com
Wikis	Text	English, French, Portuguese	Azure Cosmos DB	Internal.contoso.com/wiki
Monthly conference recordings	Video	English	SharePoint Online	Contoso.sharepoint.com
Frequently asked questions (FAQs)	Text	English	SharePoint Online	Contoso.sharepoint.com

Text-based content is provided only in one language and is not translated.

#### Requirements -

##### Planned Projects -

Contoso plans to develop the following:

A document processing workflow to extract information automatically from PDFs and images of financial documents

A customer-support chatbot that will answer questions by using FAQs

A searchable knowledgebase of all the intellectual property

##### Technical Requirements -

Contoso identifies the following technical requirements:

All content must be approved before being published.

All planned projects must support English, French, and Portuguese.

All content must be secured by using role-based access control (RBAC).

RBAC role assignments must use the principle of least privilege.

RBAC roles must be assigned only to Azure Active Directory groups.

AI solution responses must have a confidence score that is equal to or greater than 70 percent.

When the response confidence score of an AI response is lower than 70 percent, the response must be improved by human input.

##### Chatbot Requirements -

Contoso identifies the following requirements for the chatbot:

Provide customers with answers to the FAQs.

Ensure that the customers can chat to a customer service agent.

Ensure that the members of a group named Management-Accountants can approve the FAQs.

Ensure that the members of a group named Consultant-Accountants can create and amend the FAQs.

Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

When the response confidence score is low, ensure that the chatbot can provide other response options to the customers.

##### Document Processing Requirements

Contoso identifies the following requirements for document processing:

The document processing solution must be able to process standardized financial documents that have the following characteristics:

- Contain fewer than 20 pages.
- Be formatted as PDF or JPEG files.
- Have a distinct standard for each office.

The document processing solution must be able to extract tables and text from the financial documents.

The document processing solution must be able to extract information from receipt images.

Members of a group named Management-Bookkeeper must define how to extract tables from the financial documents.

Members of a group named Consultant-Bookkeeper must be able to process the financial documents.

#### Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question DRAG DROP -

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

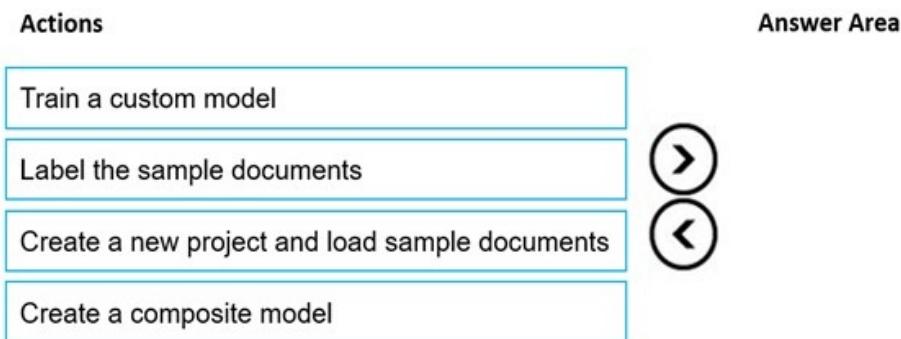
⇒ A Form Recognizer resource

⇒ An Azure web app that hosts the Form Recognizer sample labeling tool

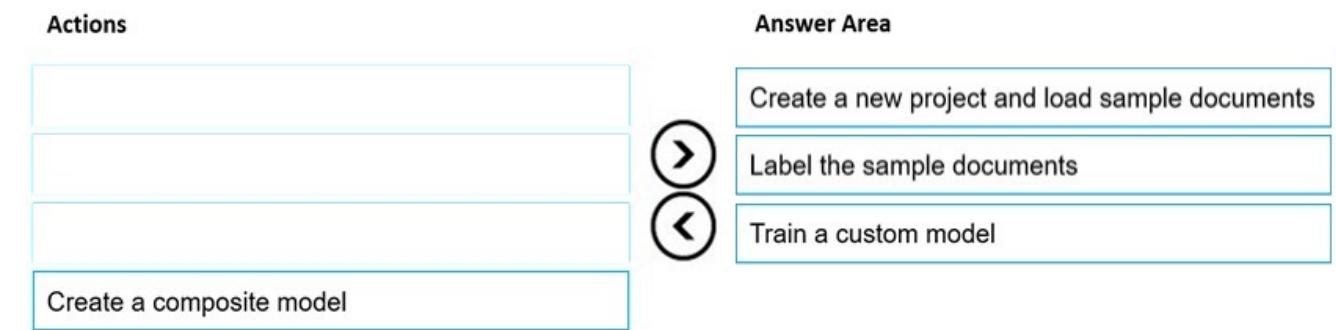
The Management-Bookkeepers group needs to create a custom table extractor by using the sample labeling tool.

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

Select and Place:



#### Answer:



#### 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>

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### Overview -

#### General Overview -

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Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the knowledgebase.

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

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

What should you do?

- Create a custom language model
- Configure audio indexing for videos only
- Enable multi-language detection for videos
- Build a custom Person model for webinar presenters

#### Answer: A

#### Explanation:

"A. Create a custom language model".

Azure Video Indexer supports automatic speech recognition through integration with the Microsoft Custom Speech Service. You can customize the Language model by uploading adaptation text, namely text from the domain whose vocabulary you'd like the engine to adapt to. Once you train your model, new words appearing in the adaptation text will be recognized, assuming default pronunciation, and the Language model will learn new probable sequences of words.

#### Reference:

<https://learn.microsoft.com/en-us/azure/azure-video-indexer/customize-language-model-overview>

#### Question: 320

CertyIQ

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## Overview -

A company named Wide World Importers is developing an e-commerce platform. You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure. Wide World Importers has a customer base that includes English, Spanish, and Portuguese speakers.

## Existing Environment -

### Applications -

Wide World Importers has an App Service plan that contains the web apps shown in the following table.

Name	Description
Product Management	An app used by employees to create and manage products. The app and the expected inputs from the employees are in English.
Inventory Tracking	An app used by employees to manage inventory when dispatching orders, receiving refunds, and receiving consignments from suppliers.

## Azure Resources -

You have the following resources:

An Azure Active Directory (Azure AD) tenant

- The tenant supports internal authentication.

- All employees belong to a group named AllUsers.

- Senior managers belong to a group named LeadershipTeam.

An Azure Functions resource

- A function app posts to Azure Event Grid when stock levels of a product change between OK, Low Stock, and Out of Stock. The function app uses the Azure Cosmos DB change feed.

An Azure Cosmos DB account

- The account uses the Core (SQL) API.

- The account stores data for the Product Management app and the Inventory Tracking app.

An Azure Storage account

- The account contains blob containers for assets related to products.

- The assets include images, videos, and PDFs.

An Azure Cognitive Services resource named `wwics`

An Azure Video Analyzer for Media (previously Video Indexer) resource named `wwivi`

## Requirements -

### Business Goals -

Wide World Importers wants to leverage AI technologies to differentiate itself from its competitors.

### Planned Changes -

Wide World Importers plans to start the following projects:

A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

A smart e-commerce project: Implement an Azure Cognitive Search solution to display products for customers to browse.

A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

### Business Requirements -

Wide World Importers identifies the following business requirements for all the projects:

Provide a multilingual customer experience that supports English, Spanish, and Portuguese.

Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

### Governance and Security Requirements

Wide World Importers identifies the following governance and security requirements:

Data storage and processing must occur in datacenters located in the United States.

Azure Cognitive Services must be inaccessible directly from the internet.

### Accessibility Requirements -

Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

## Product Creation Requirements -

Wide World Importers identifies the following requirements for improving the Product Management app:

Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

## Smart E-Commerce Requirements -

Wide World Importers identifies the following requirements for the smart e-commerce project:

Ensure that the Cognitive Search solution meets a Service Level Agreement (SLA) of 99.9% availability for searches and index writes.

Provide users with the ability to search insight gained from the images, manuals, and videos associated with the products.

Support autocomplete and suggestion based on all product name variants.

Store all raw insight data that was generated, so the data can be processed later.

Update the stock level field in the product index immediately upon changes.

Update the product index hourly.

## Shopping On-the-Go Requirements -

Wide World Importers identifies the following requirements for the shopping on-the-go chatbot:

Answer common questions.

Support interactions in English, Spanish, and Portuguese.

Replace an existing FAQ process so that all Q&A is managed from a central location.

Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

## Product JSON Sample -

You have the following JSON sample for a product.

```
{
  "sku": "b1",
  "name": {
    "en": "Bicycle",
    "es": "Bicicleta",
    "pt": "Bicicleta"
  },
  "stocklevel": "Out of Stock",
  "description": {
    "en": "Bicycle",
    "es": "Bicicleta",
    "pt": "Bicicleta"
  },
  "image": {
    "uri": "https://upload.worldwideimporters.org/bicycle.jpg",
    "alttext": {
      "en": "Bicycle",
      "es": "Bicicleta",
      "pt": "Bicicleta"
    }
  },
  "createdUtc": "2020-02-14T06:08:39Z",
  "language": "en"
}
```

## Question HOTSPOT -

You are planning the product creation project.

You need to build the REST endpoint to create the multilingual product descriptions.

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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

api.cognitive.microsofttranslator.com	?api-version=3.0&to=es&to=pt
api-nam.cognitive.microsofttranslator.com	
westus.tts.speech.microsoft.com	
wwics.cognitiveservices.azure.com/translator	

Answer:

### Answer Area

api.cognitive.microsofttranslator.com	?api-version=3.0&to=es&to=pt
api-nam.cognitive.microsofttranslator.com	
westus.tts.speech.microsoft.com	
wwics.cognitiveservices.azure.com/translator	

Explanation:

#### Box 1: api-nam.cognitive.microsofttranslator.com

this is because the case study specifically states under Business Requirements "Data storage and processing must occur in datacenters located in the United States."

see reference documentation for base urls per geo region:

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

#### Box 2: /translate -

Reference:

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

## Question: 321

CertyIQ

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Overview -

**General Overview -**  
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Customer Service	Agent	United Kingdom
Bookkeeper	Manager	United Kingdom, France, Portugal
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**Existing environment -**

**Infrastructure -**

Contoso has the following subscriptions:

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Contoso has Azure Active Directory groups for securing role-based access. The company uses the following group naming conventions:

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Contoso has the intellectual property shown in the following table.

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## Requirements -

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Contoso plans to develop the following:

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### Technical Requirements -

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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.

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### Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You need to develop an extract solution for the receipt images. The solution must meet the document processing requirements and the technical requirements.

You upload the receipt images to the Form Recognizer API for analysis, and the API returns the following JSON.

```

"documentResults": [
  {
    "docType": "prebuilt:receipt",
    "pageRange": [
      1,
      1
    ],
    "fields": {
      "ReceiptType": {
        "type": "string",
        "valueString": "Itemized",
        "confidence": 0.672
      },
      "MerchantName": {
        "type": "string",
        "valueString": "Tailwind",
        "text": "Tailwind",
        "boundingBox": [],
        "page": 1,
        "confidence": 0.913,
        "elements": [
          "#/readResults/0/lines/0/words/0"
        ]
      },
      ...
    }
  }
]

```

Which expression should you use to trigger a manual review of the extracted information by a member of the Consultant-Bookkeeper group?

- A. documentResults.docType == "prebuilt:receipt"
- B. documentResults.fields.\*.confidence < 0.7
- C. documentResults.fields.ReceiptType.confidence > 0.7
- D. documentResults.fields.MerchantName.confidence < 0.7

**Answer: B**

**Explanation:**

correct answer is B

Because that expression evaluates whether the confidence score of any field in the extracted information is less than 70 percent. Option D focus on a specific field (MerchantName) but do not consider the overall confidence score across all fields

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  },
  "stocklevel": "Out of Stock",
  "description": {
    "en": "Bicycle",
    "es": "Bicicleta",
    "pt": "Bicicleta"
  },
  "image": {
    "uri": "https://upload.worldwideimporters.org/bicycle.jpg",
    "alttext": {
      "en": "Bicycle",
      "es": "Bicicleta",
      "pt": "Bicicleta"
    }
  },
  "createdUtc": "2020-02-14T06:08:39Z",
  "language": "en"
}

```

**Question** You are developing the smart e-commerce project.

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

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

NOTE: Each correct selection is worth one point.

- A. Make API queries to the autocomplete endpoint and include suggesterName in the body.
- B. Add a suggester that has the three product name fields as source fields.
- C. Make API queries to the search endpoint and include the product name fields in the searchFields query parameter.
- D. Add a suggester for each of the three product name fields.
- E. Set the searchAnalyzer property for the three product name variants.
- F. Set the analyzer property for the three product name variants.

### **Answer: ABF**

#### **Explanation:**

Scenario: Support autocompletion and autosuggestion based on all product name variants.

A: Call a suggester-enabled query, in the form of a Suggestion request or Autocomplete request, using an API. API usage is illustrated in the following call to the

Autocomplete REST API.

POST /indexes/myxboxgames/docs/autocomplete?search&api-version=2020-06-30

"search": "minecraf",

"suggesterName": "sg"

B: In Azure Cognitive Search, typeahead or "search-as-you-type" is enabled through a suggester. A suggester provides a list of fields that undergo additional tokenization, generating prefix sequences to support matches on partial terms. For example, a suggester that includes a City field with a value for "Seattle" will have prefix combinations of "sea", "seat", "seatt", and "seattl" to support typeahead.

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

A , B , F

B. Add a suggester that has the three product name fields as source fields

F. Set the analyzer property for the three product name variants.

A. Make API queries to the autocomplete endpoint and include suggesterName in the body.

Reference:

<https://docs.microsoft.com/en-us/azure/search/search-add-autocomplete-suggestions>

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

## Question: 323

CertyIQ

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Existing environment -

Infrastructure -

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Microsoft 365

Microsoft Dynamics 365

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Ensure that the members of a group named the Agent-CustomerServices can browse the FAQs.

Ensure that access to the customer service agents is managed by using Omnichannel for Customer Service.

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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.

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## Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the document processing workflow.

You need to identify which API endpoints to use to extract text from the financial documents. The solution must meet the document processing requirements.

Which two API endpoints should you identify? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. /vision/v3.1/read/analyzeResults
- B. /formrecognizer/v2.0/custom/models/ modelId /analyze
- C. /formrecognizer/v2.0/prebuilt/receipt/analyze
- D. /vision/v3.1/describe
- E. /vision/v3.1/read/analyze

**Answer: BE**

**Explanation:**

B. /formrecognizer/v2.0/custom/models/ modelId /analyze

This endpoint is part of Azure's Form Recognizer service. It's particularly useful for extracting text and tables from financial documents because it can use custom models trained on your specific document types, enabling it to handle the distinct standards for each office as mentioned in the requirements.

E. /vision/v3.1/read/analyze

The Azure Computer Vision API's Read operation, which is executed by making a POST request to the /read/analyze endpoint, can analyze text in images, PDF documents, and TIFF files, recognizing both printed and handwritten text. It is designed to handle large documents and extracts the text and structure (such as tables) in the document.

So according to me the correct answer is B to extract the data from the tables and E to extract from the texts

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

<https://learn.microsoft.com/en-us/rest/api/computervision/read/read?view=rest-computervision-v3.1&tabs=HTTP>

## Question: 324

CertyIQ

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Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question HOTSPOT -

You are developing the knowledgebase by using Azure Cognitive Search.

You need to build a skill that will be used by indexers.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
{  
  
  "@odata.type": "#Microsoft.Skills.Text.EntityRecognitionSkill",  
  "categories": [],  
  "categories": [ "Email", "Persons", "Organizations"],  
  "categories": [ "Locations", "Persons", "Organizations"],  
  
  "defaultLanguageCode": "en",  
  "includeTypelessEntities": true,  
  "minimumPrecision": 0.7,  
  "inputs": [  
    { "name": "text",  
      "source": "/document/content"}  
  ],  
  "outputs": [  
    {"name": "persons", "targetName": "people"},  
    {"name": "locations", "targetName": "locations"},  
    {"name": "organizations", "targetName": "organizations"},  
  
    {"name": "entities"},  
    {"name": "categories"},  
    {"name": "namedEntities"}  
  ]  
}
```

**Answer:**

## Answer Area

```
{
```

```
    "@odata.type": "#Microsoft.Skills.Text.EntityRecognitionSkill",
    "categories": [],
    "categories": [ "Email", "Persons", "Organizations"],
    "categories": [ "Locations", "Persons", "Organizations"],

    "defaultLanguageCode": "en",
    "includeTypelessEntities": true,
    "minimumPrecision": 0.7,
    "inputs": [
        { "name": "text",
          "source": "/document/content"}
    ],
    "outputs": [
        { "name": "persons", "targetName": "people"},  

        { "name": "locations", "targetName": "locations"},  

        { "name": "organizations", "targetName": "organizations"},  

        { "name": "entities"}  

        { "name": "categories"}  

        { "name": "namedEntities"}  

    ]
}
```

### Explanation:

Box 1: "categories": ["Locations", "Persons", "Organizations"],

Locations, Persons, Organizations are in the outputs.

Scenario: Contoso plans to develop a searchable knowledgebase of all the intellectual property

Note: The categories parameter is an array of categories that should be extracted. Possible category types:

"Person", "Location", "Organization", "Quantity",

"Datetime", "URL", "Email". If no category is provided, all types are returned.

Box 2: "name": "entities"

The include wikis, so should include entities in the outputs.

Note: entities is an array of complex types that contains rich information about the entities extracted from text, with the following fields name (the actual entity name. This represents a "normalized" form) wikipediaId wikipediaLanguage wikipediaUrl (a link to Wikipedia page for the entity) etc.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-entity-recognition>

## Question: 325

CertyIQ

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#### Knowledgebase Requirements -

Contoso identifies the following requirements for the knowledgebase:

Supports searches for equivalent terms

Can transcribe jargon with high accuracy

Can search content in different formats, including video

Provides relevant links to external resources for further research Question You are developing the knowledgebase by using Azure Cognitive Search.

You need to process wiki content to meet the technical requirements.

What should you include in the solution?

- A. an indexer for Azure Blob storage attached to a skillset that contains the language detection skill and the text translation skill
- B. an indexer for Azure Blob storage attached to a skillset that contains the language detection skill
- C. an indexer for Azure Cosmos DB attached to a skillset that contains the document extraction skill and the text translation skill
- D. an indexer for Azure Cosmos DB attached to a skillset that contains the language detection skill and the text translation skill

#### Answer: 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.

Incorrect Answers:

Not A, not B: The wiki is stored in Azure Cosmos DB.

Reference:

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-document-extraction>

<https://docs.microsoft.com/en-us/azure/search/cognitive-search-skill-text-translation>

#### Question: 326

CertyIQ

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Provides relevant links to external resources for further research Question You are developing the knowledgebase by using Azure Cognitive Search.

You need to meet the knowledgebase requirements for searching equivalent terms.

What should you include in the solution?

- A. synonym map
- B. a suggester
- C. a custom analyzer
- D. a built-in key phrase extraction skill

#### Answer: A

#### Explanation:

Within a search service, synonym maps are a global resource that associate equivalent terms, expanding the scope of a query without the user having to actually provide the term. For example, assuming "dog", "canine", and "puppy" are mapped synonyms, a query on "canine" will match on a document containing "dog".

Create synonyms: A synonym map is an asset that can be created once and used by many indexes.

#### Reference:

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

## Question: 327

CertyIQ

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You are working with a solutions architect to design and implement the features of the e-commerce platform. The platform will use microservices and a serverless environment built on Azure.

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### Requirements -

#### Business Goals -

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A product creation project: Help employees create accessible and multilingual product entries, while expediting product entry creation.

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A shopping on-the-go project: Build a chatbot that can be integrated into smart speakers to support customers.

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Whenever possible, scale based on transaction volumes to ensure consistent performance.

Minimize costs.

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Data storage and processing must occur in datacenters located in the United States.

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Wide World Importers identifies the following accessibility requirements:

All images must have relevant alt text.

All videos must have transcripts that are associated to the video and included in product descriptions.

Product descriptions, transcripts, and alt text must be available in English, Spanish, and Portuguese.

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Minimize how long it takes for employees to create products and add assets.

Remove the need for manual translations.

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Answer common questions.

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        "pt": "Bicicleta"  
    },  
    "stocklevel": "Out of Stock",  
    "description": {  
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    },  
    "image":  
    {"uri": "https://upload.worldwideimporters.org/bicycle.jpg",  
        "alttext": {  
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        }  
    },  
    "createdUtc": "2020-02-14T06:08:39Z",  
    "language": "en"  
}
```

## Question HOTSPOT -

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

You need to build the Adaptive Card for the chatbot.

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

NOTE: Each correct selection is worth one point.

Hot Area:

```

{
  "$schema": "http://adaptivecards.io.schemas/adaptive-card.json",
  "type": "AdaptiveCard",
  "version": "1.3",
  "body": [
    {
      "type": "TextBlock",
      "size": "Medium",
      "weight": "Bolder",
      "text": "${if(language == 'en', 'en', name)}  
name  
name.en  
name[language]"
    },
    {
      "type": "TextBlock",
      "text": "${stockLevel}",
      "color": "Attention"
    },
    {
      "type": "Image",
      "url": "${image.uri}",
      "size": "Medium",
      "altText": "${image.altText.en}  
image.altText.language  
image.altText.[\"language\"]  
image.altText.[language]"
    }
  ]
}

```

**Answer:**

```

{
  "$schema": "http://adaptivecards.io.schemas/adaptive-card.json",
  "type": "AdaptiveCard",
  "version": "1.3",
  "body": [
    {
      "type": "TextBlock",
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name  
name.en  
name[language]
    },
    {
      "type": "TextBlock",
      "$when": "${stockLevel != 'OK'}"  
"$when": "${stockLevel == 'OK'}"  
"$when": "${stockLevel.OK}"
      "text": "${stockLevel}",
      "color": "Attention"
    },
    {
      "type": "Image",
      "url": "${image.uri}",
      "size": "Medium",
      "altText": "${image.altText.en}  
image.altText.language  
image.altText.[language]  
image.altText.[language]
    }
  ]
}

```

### Explanation:

Box 1: name [language]

Chatbot must support interactions in English, Spanish, and Portuguese.

Box 2: "\$when:\$ stockLevel != 'OK' "

Product displays must include images and warnings when stock levels are low or out of stock.

Box 3: image.altText[language]

1. name[language]

2. != OK

3. image.altText.[language]

**Introductory Info Case study -**

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```

Question HOTSPOT -

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

You are configuring access to the QnA Maker (classic) resources.

Which role should you assign to AllUsers and LeadershipTeam? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

AllUsers:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

LeadershipTeam:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

Answer:

## Answer Area

AllUsers:

Cognitive Service User
Contributor
Owner
QnA Maker Editor
QnA Maker Read

LeadershipTeam:

Cognitive Service User
Contributor
Owner
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QnA Maker Read

### Explanation:

Box 1: QnA Maker Editor -

Scenario: Provide all employees with the ability to edit Q&As.

The QnA Maker Editor (read/write) has the following permissions:

- ⇒ Create KB API
- ⇒ Update KB API
- ⇒ Replace KB API
- ⇒ Replace Alterations
- ⇒ "Train API" [in new service model v5]

Box 2: Contributor -

Scenario: Only senior managers must be able to publish updates.

Contributor permission: All except ability to add new members to roles

Reference:

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

## Question: 329

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

You need to build the Adaptive Card for the chatbot.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

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"body": [
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    "type": "TextBlock",
    "size": "Medium",
    "weight": "Bolder",
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name.en  
name[language]"}]

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  "$when": "${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"]  
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```

Answer:

## Answer Area

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image.altText["language"]  
image.altText[language]"
  }
]
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### 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]

Dynamically retrieves altText based on the language variable.

1. name[language]

2. != OK

3. image.altText.[language]

## PFB AI-102 Renewal Exam questions [Ignore if you are not preparing for renewal exam]:

### Question 1:

You have an application that performs Speech to Text services for users by using the Speech SDK. You need to add the ability to perform Text to Speech in the application. Besides the text, which other value must you

include in your queries? Select only one answer.

1. a keyword
2. the phrase list
3. the pronunciation
4. the voice

The correct answer is:

**the voice**

When performing Text to Speech (TTS) using the Speech SDK, you need to specify the **voice** parameter in addition to the text. This indicates which synthesized voice will be used to generate the speech output.

**Question 2:**

You are developing a Text to Speech application by using the Azure AI Speech service. The application will be used to convert interview transcripts into audio files. You need to ensure that the audio files can support multiple speaker voices. What should you use? Select only one answer.

1. HTML
2. Speaker Detection
3. SSML
4. the Long Audio API

The correct answer is:

**SSML (Speech Synthesis Markup Language)**

**Explanation:** SSML (Speech Synthesis Markup Language) allows you to define multiple speakers in your Text-to-Speech application by specifying different voices for different parts of the text. You can use <voice> tags within SSML to assign distinct voices to segments of text, which is essential for scenarios requiring multiple speaker voices.

**Question 3:**

You develop an application by using the Speech SDK. The application translates the English language version of podcasts into French and German. You need to create the code to specify the input and target languages. Which two Speech SDK objects should you add to the code? Select all answers that apply.

1. AutoDetectSourceLanguageConfig
2. SpeechRecognizer
3. SpeechSynthesizer
4. SpeechTranslationConfig
5. TranslationRecognizer

The correct answers are:

1. **SpeechTranslationConfig**

This object is used to configure the source and target languages for translation. It specifies the input language (e.g., English) and the target languages (e.g., French and German).

### 1. TranslationRecognizer

This object performs the speech-to-text translation. It utilizes the configuration provided by the SpeechTranslationConfig to recognize speech in the source language and translate it into the target languages.

#### Explanation:

**AutoDetectSourceLanguageConfig:** Used for detecting the source language automatically in speech-to-text scenarios, but it is not needed when you already know the input language.

**SpeechRecognizer:** Used for basic speech-to-text tasks, not for translation.

**SpeechSynthesizer:** Used for converting text to speech but not for translation purposes.

#### Question 4:

You are building an object detection solution to identify components on a production line. You have 200 sample images that will be used to train the custom object detection model. You need to train a custom model in Microsoft Vision Studio by using the sample images and their corresponding labels. Which file format is required for the labelling data? Select only one answer.

1. COCO
2. CSV
3. JPG
4. XML

The correct answer is:

**COCO**

#### Explanation:

Microsoft Vision Studio requires the labeling data to be in the **COCO (Common Objects in Context)** format for training custom object detection models. COCO is a widely-used JSON-based annotation format that includes information about bounding boxes, categories, and other metadata for object detection tasks.

Other formats like **CSV** and **XML** may be used in some contexts, but COCO is the standard format for Microsoft Vision Studio. **JPG** is an image file format and not suitable for labeling data.

#### Question 5:

You plan to use the Azure AI Language service to analyze statements that resemble the following examples: The score for the experiment was 0.049. We had a score of 37.4. With a score of 0.9, we will proceed. You must minimize development effort. What should you use to extract the score values? Select only one answer.

1. A learned entity
2. A prebuilt entity
3. A regular expression entity
4. An intent

The correct answer is:

### A regular expression entity

#### Explanation:

Regular expression entities are ideal for extracting specific patterns in text, such as numeric values, with minimal development effort. In this case, the score values follow a recognizable pattern (e.g., numerical values), and a regular expression can be used to identify and extract them directly from the text.

Using a regular expression is straightforward, flexible, and does not require training or predefined models, making it the most efficient choice for this task.

#### Question 6:

You maintain an Azure AI Language Understanding service named lu1. The service lu1 contains an application named mod1. Mod1 has one version and is assigned to the Production slot. You create a new version after making changes to mod1. You need to ensure that the new version is available for testing via a built-in endpoint. What should you do? Select only one answer.

1. Clone the new version.
2. Publish the new version.
3. Publish the new version to a Production slot.
4. Publish the new version to a Staging slot

The correct answer is:

### **Publish the new version to a Staging slot.**

#### Explanation:

To test the new version of your Language Understanding (LUIS) application before making it live in production, you should publish it to the **Staging slot**. The Staging slot provides a built-in endpoint for testing purposes, allowing you to validate the new version without affecting the existing production application.

Publishing to the **Production slot** directly would make the new version live, bypassing the testing phase. Cloning the version is not required for testing.

#### Question 7:

You plan to use Azure AI services containers. You need to describe the use of containers to a co-worker. Which of the following statements correctly describe Azure AI services containers? Select only one answer.

1. Are virtual machine images.
2. Can be deployed to an Azure Kubernetes Service cluster.
3. Can run indefinitely on hardware with no network connection.
4. Contain a copy of the Windows operating system.

The correct answer is:

### **Can be deployed to an Azure Kubernetes Service cluster.**

#### Explanation:

Azure AI services containers are Docker containers that package Azure AI services, allowing you to deploy

them in your own infrastructure. They:

**Can be deployed to an Azure Kubernetes Service (AKS) cluster** or any other container orchestration platform.

Do **not** contain a virtual machine image; they are containerized applications, which are more lightweight than VMs.

Require periodic access to the internet to validate licensing and comply with Azure's licensing requirements; they cannot run indefinitely on hardware with no network connection.

Do **not** contain a copy of the Windows operating system. Containers typically share the host operating system kernel.

#### Question 8:

You plan to use an Azure AI Language container for language detection from text inputs. Which container image should you use? Select only one answer.

1. Langchain/langchain
2. mcr.microsoft.com/azure-cognitive-services/textanalytics/language
3. mcr.microsoft.com/product/azure-cognitive-services/speechservices/speech-to-text
4. mcr.microsoft.com/product/azure-cognitive-services/vision/spatial-analysis/

The correct answer is:

**mcr.microsoft.com/azure-cognitive-services/textanalytics/language**

#### Explanation:

The container image **mcr.microsoft.com/azure-cognitive-services/textanalytics/language** is specifically designed for Azure AI Language services, including tasks like language detection, sentiment analysis, and named entity recognition. This is the appropriate container for performing language detection from text inputs.

The other options are unrelated to language detection:

**Langchain/langchain:** This is a Python library for building applications using LLMs, not an Azure AI container.  
**mcr.microsoft.com/product/azure-cognitive-services/speechservices/speech-to-text:** This is for converting speech to text.

**mcr.microsoft.com/product/azure-cognitive-services/vision/spatial-analysis/:** This is for spatial analysis in vision-related tasks.

#### Question 9:

You make the following Azure AI Language service API call:

`https://ai102cs.cognitiveservices.azure.com/text/analytics/v3.1/entities?showStats=false` You send the following request body: "documents": [ "language": "en", "id": "1", "text": "Our tour guide took us up the Space Needle during our trip to Seattle last week." ]

You receive the following response body.

```
"documents": [ "id": "1", "entities": [ "name": "Space Needle", "matches": [ "wikipediaScore": 0.3979737247920536, "text": "Space Needle", "offset": 30, "length": 12 ], "wikipediaLanguage": "en",
```

```
"wikipediald": "Space Needle", "wikipediaUrl": "https://en.wikipedia.org/wiki/Space_Needle", "bingId": "f8dd5b08-206d-2554-6e4a-893f51f4de7e", "type": "Location", "name": "Space Needle", "matches": [ "entityTypeScore": 0.71, "text": "Space Needle", "offset": 30, "length": 12 ], "type": "Organization", "name": "Seattle", "matches": [ "wikipediaScore": 0.2544970497716894, "entityTypeScore": 0.81, "text": "Seattle", "offset": 62, "length": 7 ], "wikipediaLanguage": "en", "wikipediald": "Seattle", "wikipediaUrl": "https://en.wikipedia.org/wiki/Seattle", "bingId": "5fbba6b8-85e1-4d41-9444-d9055436e473", "type": "Location", "subType": "GPE" ]], "errors": []
```

What do “Space Needle” and “Seattle” represent in the response? Select only one answer. intents linked entities learned entities regular expression entities

The correct answer is:

**linked entities**

**Explanation:**

In the response, **“Space Needle”** and **“Seattle”** are identified as **linked entities** because they are connected to external resources, such as **Wikipedia** or **Bing**, providing additional context about the identified terms. The wikipediald, wikipediaUrl, and bingId in the response clearly indicate the linking to external knowledge bases.

Other options:

**Intents:** Relate to intent recognition in conversational AI, which is not part of this response.

**Learned entities:** Require custom training to extract domain-specific information, which is not the case here.

**Regular expression entities:** Use predefined patterns to extract data but do not link to external knowledge bases.

#### Question 10:

You make an Azure AI Language service API call. You call the following URL.

<https://ai102cs.cognitiveservices.azure.com/text/analytics/v3.1/keyPhrases>

You send the following request body.

```
"documents": [ "language": "en", "id": "1", "text": "Our tour guide took us up the Space Needle during our trip to Seattle last week." ]
```

You receive the following response body

```
"documents": [ "id": "1", "keyPhrases": ["Space Needle", "trip", "Seattle", "tour guide", "week"] ], "errors": []
```

There are multiple documents being analyzed.

For the following statement, select Yes if the statement is true. Otherwise, select No. Select only one answer.

Yes No

Answer:

No

### **Explanation:**

The request body contains only one document under the "documents" array, as shown below:

json

[Copy code](#)

```
"documents": [  
  
    "language": "en",  
  
    "id": "1",  
  
    "text": "Our tour guide took us up the Space Needle during our trip to Seattle last week."  
  
]
```

Since there is only one document in the request, the statement that multiple documents are being analyzed is **not true**.

### **Question 11:**

You are building an app to help students organize their learning materials by topics, using the Azure AI Language service. You need to analyze each document and suggest groups of documents with common themes based on overlapping sets of important terms.

What should you do first?

1. Select only one answer.
2. Extract key phrases for each document.
3. Extract linked entities for each document.
4. Use the documents as a data source to support custom question answering.
5. Use the documents as a data source to support question answering.

The correct answer is:

**Extract key phrases for each document.**

### **Explanation:**

To suggest groups of documents with common themes based on overlapping sets of important terms, the first step is to **extract key phrases** from each document. Key phrases represent the most important terms or concepts in the document, and by analyzing these, you can identify common themes between different documents.

**Extracting linked entities** might provide additional context, but key phrases are more directly relevant for identifying and grouping common themes.

**Using the documents for custom question answering** is more suited for creating an interactive Q&A experience, not for grouping documents by themes based on content.

**Using the documents for question answering** is another approach for retrieving specific answers but is not related to grouping by common themes.

### **Question 12:**

You are building a chatbot. You need to ensure that all answers have a suitably serious tone. What should you modify? Select only one answer.

1. The choice of LLM
2. The system message
3. The temperature
4. The top probability value

The correct answer is:

#### **The system message**

#### **Explanation:**

The **system message** in a chatbot configuration is used to set the behavior and tone of the model's responses. By adjusting the system message, you can provide instructions to the model on how to behave in terms of tone, style, and formality. In this case, you can set the tone to be serious through the system message.

**The choice of LLM:** While selecting a large language model (LLM) may affect performance, it is the system message that directly controls tone.

**The temperature:** This controls the randomness of the model's responses. A lower temperature (e.g., 0.2) makes responses more deterministic, but it does not specifically set tone.

**The top probability value:** This is used in sampling strategies for controlling diversity in generated responses but does not affect the tone of the answers.

### **Question 13:**

You need to separate your instructions from the user input within your prompt text. What should you use?

Select only one answer.

1. ### or --- separator blocks
2. A /\*comment block \*/
3. A carriage return/line feed pair
4. An HTML <hr> (horizontal rule)

The correct answer is:

#### **A carriage return/line feed pair**

#### **Explanation:**

To separate instructions from user input within a prompt, the most commonly used and straightforward method is to use a **carriage return/line feed pair** (i.e., a newline). This creates a clear visual separation between different parts of the prompt, making it easier to distinguish between the instructions you provide to the model and the user input.

Other options:

**### or --- separator blocks:** These are typically used in markdown or other formatting contexts, not directly in AI prompts.

**A /\*comment block \*/:** This is used for adding comments in code and would not be interpreted as part of a natural language prompt.

**An HTML <hr> (horizontal rule):** This is an HTML tag for creating a visual separator in web pages, but it is not applicable in standard text prompts.

#### Question 14:

You are using Azure OpenAI to build a chatbot to solve complex logic problems. You break each problem down into a succession of simpler requests in order to get more accurate results. What prompt-engineering approach did you use? Select only one answer.

1. Chain of thought
2. Few shot learning
3. Grounding
4. System message

The correct answer is:

#### Chain of thought

#### Explanation:

The **chain of thought** approach in prompt engineering involves breaking down a complex problem into a series of simpler, logical steps. This helps guide the model through a structured thought process, resulting in more accurate and coherent responses. Each step builds upon the previous one, which is particularly useful for solving complex logic problems.

**Few shot learning:** Involves providing a few examples within the prompt to help the model understand the task. It is not specifically about breaking down the problem into steps.

**Grounding:** Refers to ensuring the model's responses are based on accurate, reliable information or context.

**System message:** Used to define the behavior or role of the model in a conversation, but it does not specifically involve breaking down tasks into simpler steps.

#### Question 15:

You are developing an application by using the Azure OpenAI SDK. You need to configure the Azure OpenAI client object. Which two parameters should you provide? Select all answers that apply.

1. The Azure OpenAI model deployment name.
2. The Azure OpenAI resource endpoint.
3. The Azure OpenAI resource key.
4. The Azure OpenAI resource name.

The correct answers are:

1. **The Azure OpenAI model deployment name.**
2. **The Azure OpenAI resource endpoint.**

#### Explanation:

When configuring the Azure OpenAI client object, you need to provide the following key parameters:

**The Azure OpenAI model deployment name:** This specifies the name of the deployed model you want to use (e.g., text-davinci-003).

**The Azure OpenAI resource endpoint:** This is the URL endpoint of the Azure OpenAI service, where your application sends requests for processing (e.g., <https://<your-resource-name>.openai.azure.com>).

**The Azure OpenAI resource key:** This is an authentication key required for API access, but it's typically included in the configuration for authenticating the request to the service.

**The Azure OpenAI resource name:** This refers to the resource name in Azure but is not typically required when setting up the SDK client. The resource endpoint is more directly used for configuration.

#### Question 16:

You are building a question answering solution by using the Azure AI Language service. The solution will handle the natural language input from users using a web-based 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 agent's responses. What are two ways to achieve the goal? Each correct answer presents a complete solution. Select all answers that apply.

1. Change the Azure AI Language pricing tier.
2. Define synonyms for commonly used terms.
3. Enable Log Analytics.
4. Use active learning.

The correct answers are:

1. Define synonyms for commonly used terms.
2. Use active learning.

#### Explanation:

**Define synonyms for commonly used terms:** By defining synonyms, you help the system understand various ways users might phrase their queries, improving the agent's ability to match input with relevant responses. This can help reduce the frequency of generic responses like "Sorry, I don't understand that."

**Use active learning:** Active learning helps improve the model over time by using feedback from real interactions. With active learning, the system can continuously refine its understanding of user queries and improve response accuracy based on real-world data and corrections, reducing misunderstandings.

Other options:

**Change the Azure AI Language pricing tier:** Changing the pricing tier may provide access to more features or improve performance, but it will not directly address the issue of the agent misunderstanding user inputs.

**Enable Log Analytics:** While Log Analytics is useful for monitoring and diagnosing issues, it does not directly improve the model's ability to understand and respond accurately to user queries.

#### Question 17:

You plan to develop a language model by using Azure AI Language to answer questions. You need to decide whether to use the question answering service or the Language Understanding service. What are two features of the question answering service? Each correct answer presents a complete solution. Select all answers that apply.

1. Entities are extracted from user input.
2. The service uses natural language understanding to interpret the input.
3. User input can trigger an action.

4. User input is matched to an intent.
5. User input is matched to items in a knowledge base.

The correct answers are:

1. The service uses natural language understanding to interpret the input.
2. User input is matched to items in a knowledge base.

**Explanation:**

**The service uses natural language understanding to interpret the input:** The Question Answering service leverages natural language understanding to interpret the user's input and provide relevant answers based on the context and knowledge provided.

**User input is matched to items in a knowledge base:** The Question Answering service can be connected to a knowledge base, such as documents or FAQs, and matches the user's input to relevant information from that knowledge base to generate accurate responses.

Other options:

**Entities are extracted from user input:** This is more related to the Language Understanding (LUIS) service, which focuses on entity extraction and intent recognition.

**User input can trigger an action:** This is more related to intent-based services such as LUIS, which are designed to trigger specific actions based on user input.

**User input is matched to an intent:** This applies to the Language Understanding (LUIS) service, which is designed to recognize intents in user input, rather than to the Question Answering service.

**Question 18:**

You plan to build an airline chatbot. You need to recommend an approach to enable the chatbot to provide accurate and up-to-the-minute responses to specific questions about the airline services. What approach should you recommend? Select only one answer.

1. Azure AI Language question answering
2. Fine-tuning a large language model
3. Reinforcement learning
4. Retrieval Augmented Generation

The correct approach to enable your airline chatbot to provide accurate and up-to-the-minute responses to specific questions about airline services is **Retrieval Augmented Generation (RAG)**.

**Explanation:**

Retrieval Augmented Generation (RAG) combines the strengths of information retrieval and generative models. It allows the chatbot to access up-to-date information from a knowledge base while generating coherent and contextually relevant responses. This is particularly useful for providing accurate, real-time answers to customer inquiries about airline services.

**Other Options:**

**Azure AI Language Question Answering:** While this service is designed to answer questions based on a provided knowledge base, it may not always provide the most current information unless the knowledge base is regularly updated.

**Fine-tuning a Large Language Model:** Fine-tuning can adapt a model to specific domains, but it may not ensure access to the most recent information unless combined with a dynamic data source.

**Reinforcement Learning:** This approach is more suited for tasks involving decision-making and optimization

over time, rather than providing up-to-date factual information.

By implementing RAG, your chatbot can effectively retrieve and generate responses based on the latest available data, ensuring accurate and timely information for users.

Advancements in AI Model Customization and Retrieval-Augmented Generation

[The Wall Street Journal](#)

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[From RAGs to Vectors: How Businesses Are Customizing AI Models](#)

[212 days ago](#)

### Question 19

You have an Azure OpenAI resource named ai1. The ai1 resource has a model deployment called gpt4c that is augmented with company data. What URL endpoint should you use to query the model?

Select only one answer.

1. <https://ai1.openai.azure.com/openai/deployments/gpt4c/chat/completions>
2. <https://gpt4c.ai1.azure.com/chat/completions>
3. <https://gpt4c.openai.azure.com/chat/completions>
4. <https://gpt4c.openai.azure.com/openai/deployments/ ai1/chat/completions>

The correct answer is:

[\*\*https://ai1.openai.azure.com/openai/deployments/gpt4c/chat/completions\*\*](https://ai1.openai.azure.com/openai/deployments/gpt4c/chat/completions)

#### Explanation:

In Azure OpenAI, the endpoint for querying a model deployment follows this format:

**https:// your-resource-name .openai.azure.com/openai/deployments/ deployment-name /chat/completions**

In this case:

**ai1** is the name of the Azure OpenAI resource.

**gpt4c** is the model deployment name.

The rest of the URL specifies the specific API path for chat completions.

This structure is consistent with Azure OpenAI's endpoint conventions for querying deployed models.

### Question 20

You have an Azure OpenAI model deployment that uses Azure AI Search to augment requests. What parameters of the Azure AI Search service do you need to supply in the request body?

Select only one answer.

1. OpenAI resource endpoint and deployment name only
2. OpenAI resource endpoint, deployment name, and key
3. Search endpoint and key only
4. Search endpoint, index name, and key

The correct answer is:

**Search endpoint, index name, and key**

**Explanation:**

When using Azure AI Search to augment requests in an Azure OpenAI model deployment, you need to supply parameters that link to your Azure AI Search service. These parameters include:

**Search endpoint:** The URL of the Azure AI Search service.

**Index name:** The name of the search index that contains the data you want to use for augmenting requests.

**Key:** The API key to authenticate access to the Azure AI Search service.

These parameters are necessary for properly integrating Azure AI Search into your OpenAI model deployment.

**Question 21:**

You have sample forms and associated JSON files stored in Azure storage. You plan to use the sample data to train a custom Azure AI Document Intelligence model. What two methods can you use to train the custom model? Each correct answer presents a complete solution.

Select all answers that apply.

1. Document Intelligence Studio
2. The Build model REST API
3. The Custom Vision portal
4. The Get model REST API

The correct answers are:

1. **Document Intelligence Studio**
2. **The Build model REST API**

**Explanation:**

**Document Intelligence Studio:** This is a visual tool provided by Azure AI Document Intelligence that allows you to upload forms and associated data, train, and manage custom models. It is designed to simplify the process of training document processing models with your sample data.

**The Build model REST API:** This API allows you to programmatically train a custom model for document processing. You can use this API to build a custom model by uploading the sample forms and associated JSON files for training.

Other options:

**The Custom Vision portal:** This portal is used for training custom image classification models, not for document processing models.

**The Get model REST API:** This API is used to retrieve information about an already trained model, not for building or training a model.

## Question 22:

You have scanned images of unstructured plain text documents. You plan to use Azure AI Document Intelligence to analyze the images and extract labelled data. You need to train and label a custom model. What should you use?

Select only one answer.

1. Azure AI Vision Studio
2. Document Intelligence Studio and a custom neural model
3. Document Intelligence Studio and a custom template model
4. Azure AI Custom Vision portal

The correct answer is:

**Document Intelligence Studio and a custom template model**

### Explanation:

When working with scanned images of unstructured plain text documents and planning to use Azure AI Document Intelligence, you would use **Document Intelligence Studio** to train and label a custom model. For documents that follow a predictable structure (like forms or invoices), you can use a **custom template model** to extract labeled data. This approach leverages template-based extraction where you define specific areas of the document for data extraction.

**Document Intelligence Studio and a custom neural model:** This would be used for more complex, unstructured data extraction tasks, but a custom template model is often more appropriate for structured document extraction.

**Azure AI Vision Studio:** This is primarily used for analyzing images and video, but for document processing, Document Intelligence Studio is the proper tool.

**Azure AI Custom Vision portal:** This is used for training custom image classification models, not for document extraction.

## Question 23:

You have approximately 1000 images that need detailed text descriptions. You plan to use the Azure AI Vision Analyze Image API. What visual feature should you use?

Select only one answer.

1. VisualFeatures.Caption
2. VisualFeatures.DenseCaptions
3. VisualFeatures.Objects
4. VisualFeatures.Read

The correct answer is:

**VisualFeatures.Caption**

### Explanation:

The **VisualFeatures.Caption** feature in the Azure AI Vision Analyze Image API is used to generate a detailed text description (caption) of the image. This feature provides a summary of the image content, which is what you need for describing the images in detail.

**VisualFeatures.DenseCaptions:** This feature provides more detailed and multiple captions for specific areas of an image, which might be useful for more fine-grained image analysis but not necessarily for a single detailed description.

**VisualFeatures.Objects:** This feature detects and identifies objects in the image, but it doesn't generate a text description or caption for the entire image.

**VisualFeatures.Read:** This feature is used for reading and extracting text from images (like OCR), not for generating descriptive captions.

#### Question 24:

You are writing code to use the Azure AI Vision SDK to generate captions for images. What object should you create first?

Select only one answer.

1. Image
2. ImageAnalysisClient
3. ImageAnalysisResult
4. VisualFeatures

The correct answer is:

**ImageAnalysisClient**

#### Explanation:

To generate captions for images using the Azure AI Vision SDK, the first object you should create is the **ImageAnalysisClient**. This client is used to interact with the Azure AI Vision API and perform tasks like analyzing images, including generating captions.

**Image:** This is typically a class that represents the image itself, but it's not used to directly interact with the API.

**ImageAnalysisResult:** This object contains the results after analyzing an image, such as the captions or tags, but you first need the **ImageAnalysisClient** to analyze the image.

**VisualFeatures:** This is a parameter specifying the types of analysis you want to perform (e.g., captions, objects, etc.), but you still need an **ImageAnalysisClient** to use it.

#### Question 25:

You are using the Azure AI Vision service to analyze images. Which two elements can be extracted from the images? Select all answers that apply.

1. artistic merit
2. originality
3. rating for adult content
4. text

The correct answers are:

1. Rating for adult content
2. Text

#### Explanation:

When using the Azure AI Vision service to analyze images, the following elements can be extracted:

**Rating for adult content:** The service can evaluate images for adult content and provide a rating indicating the likelihood of adult material.

**Text:** The service can extract text from images using optical character recognition (OCR). This is useful for recognizing printed or handwritten text in images.

Other options like **artistic merit** and **originality** are not features provided by Azure AI Vision. The service focuses on tasks like object detection, text extraction, and content moderation, but does not assess artistic or originality value.

# Thank you

Thank you for being so interested in the premium exam material.

I'm glad to hear that you found it informative and helpful.

If you have any feedback or thoughts on the bumps, I would love to hear them.  
Your insights can help me improve our writing and better understand our readers.

## Best of Luck

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