AI-102 Designing and Implementing a Microsoft Azure AI Solution

Topic 1 - Question Set 1

Question #1 *Topic 1*

DRAG DROP -

You have 100 chatbots that each has its own Language Understanding model.

Frequently, you must add the same phrases to each model.

You need to programmatically update the Language Understanding models to include the new phrases.

How should you complete the code? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values

- AddPhraseListAsync
- Phraselist
- PhraselistCreateObject
- Phrases
- SavePhraselistAsync
- UploadPhraseListAsync

Answer Area

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

});
```

Correct Answer:

Values

- AddPhraseListAsync
- Phraselist
- PhraselistCreateObject
- Phrases
- SavePhraselistAsync
- UploadPhraseListAsync

Answer Area

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

});
```

Box 1: AddPhraseListAsync -

Example: Add phraselist feature -

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

{

EnabledForAllModels = false,

IsExchangeable = true,

Name = "QuantityPhraselist",

Phrases = "few,more,extra"

});

Box 2: PhraselistCreateObject -

Reference:

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

Question #2 *Topic 1*

DRAG DROP -

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

App1 was developed by using a Language Understanding authoring resource named lu1.

App1 has the versions shown in the following table.

Version	Trained date	Published date
V1.2	*None*	*None*
V1.1	2020-10-01	*None*
V1.0	2020-09-01	2020-09-15

You need to create a container that uses the latest deployable version of app1.

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

Select and Place:

Actions

- Run a container that has `version` set as an environment variable.
- Export the model by using the Export as JSON option.
- Select v1.1 of app1.
- Run a container and mount the model file.
- Select v1.0 of app1.
- Export the model by using the Export for containers (GZIP) option.
- Select v1.2 of app1.

Answer Area

Actions	Answer Area
Run a container that has `version` set as an environment variable.	Export the model by using the Export for containers (GZIP) option.
Export the model by using the Export as JSON option.	Select v1.1 of app1.
Select v1.1 of app1.	Run a container and mount the model file.
Run a container and mount the model file.	
Select v1.0 of app1.	
Export the model by using the Export for containers (GZIP) option.	
Select v1.2 of app1.	

Correct Answer:

Step 1: Export the model using the Export for containers (GZIP) option.

Export versioned app's package from LUIS portal

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

1. Sign on to the LUIS portal.
2. Select the app in the list.
3. Select Manage in the app's navigation bar.
4. Select Versions in the left navigation bar.

Question #3 *Topic 1*

You need to build a chatbot that meets the following requirements:

- Supports chit-chat, knowledge base, and multilingual models
- Performs sentiment analysis on user messages
- Selects the best language model automatically

What should you integrate into the chatbot?

A. QnA Maker, Language Understanding, and Dispatch

B. Translator, Speech, and Dispatch

C. Language Understanding, Text Analytics, and QnA Maker **Most Voted**

D. Text Analytics, Translator, and Dispatch

Correct Answer: *C*

Community vote distribution

C (100%)

Question #4

Topic 1

Your company wants to reduce how long it takes for employees to log receipts in expense reports. All the receipts are in English.
You need to extract top-level information from the receipts, such as the vendor and the transaction total. The solution must minimize development effort.
Which Azure service should you use?

A. Custom Vision

B. Personalizer

C. Form Recognizer **Most Voted**

D. Computer Vision

Correct Answer: *C*

Community vote distribution

C (100%)

Question #5 *Topic 1*

HOTSPOT -

You need to create a new resource that will be used to perform sentiment analysis and optical character recognition (OCR). The solution must meet the following requirements:

- Use a single key and endpoint to access multiple services.
- Consolidate billing for future services that you might use.
- Support the use of Computer Vision in the future.

How should you complete the HTTP request to create the new resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

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

- PATCH
- POST
- PUT

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

- CognitiveServices
- ComputerVision
- TextAnalytics

Correct Answer:

Answer Area

Box 1: PUT -

Sample Request: PUT https://management.azure.com/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/test-

Question #6 *Topic 1*

You are developing a new sales system that will process the video and text from a public-facing website.

You plan to monitor the sales system to ensure that it provides equitable results regardless of the user's location or background.

Which two responsible AI principles provide guidance to meet the monitoring requirements? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. transparency

B. fairness **Most Voted**

C. inclusiveness **Most Voted**

D. reliability and safety

E. privacy and security

Correct Answer: *BC*

Community vote distribution

BC (100%)

Question #7 *Topic 1*

DRAG DROP -

You plan to use containerized versions of the Anomaly Detector API on local devices for testing and in on-premises datacenters.

You need to ensure that the containerized deployments meet the following requirements:

- Prevent billing and API information from being stored in the command-line histories of the devices that run the container.
- Control access to the container images by using Azure role-based access control (Azure RBAC).

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

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

Select and Place:

Actions

- Create a custom Dockerfile.
- Pull the Anomaly Detector container image.
- Distribute a `docker run` script.
- Push the image to an Azure container registry.
- Build the image.
- Push the image to Docker Hub.

Answer Area

Correct Answer:

Actions

- Create a custom Dockerfile.
- Pull the Anomaly Detector container image.
- Distribute a `docker run` script.
- Push the image to an Azure container registry.
- Build the image.
- Push the image to Docker Hub.

Answer Area

- Pull the Anomaly Detector container image.
- Create a custom Dockerfile.
- Push the image to an Azure container registry.
- Distribute a `docker run` script.

Step 1: Pull the Anomaly Detector container image.

Step 2: Create a custom Dockerfile

Step 3: Push the image to an Azure container registry.

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

Step 4: Distribute the docker run script

Use the docker run command to run the containers.

Reference:

https://docs.microsoft.com/en-us/azure/container-registry/container-registry-intro

Question #8 *Topic 1*

HOTSPOT -

You plan to deploy a containerized version of an Azure Cognitive Services service that will be used for text analysis.

You configure https://contoso.cognitiveservices.azure.com as the endpoint URI for the service, and you pull the latest version of the Text Analytics

Sentiment Analysis container.

You need to run the container on an Azure virtual machine by using Docker.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \
[                                                    ▼] \
Eula=accept \
Billing= [                                           ▼] \
ApiKey=xxxxxxxxxxxxxxxxxxx
```

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

Correct Answer:

Answer Area

```
docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \
[                                                    ▼] \
Eula=accept \
Billing= [                                           ▼] \
ApiKey=xxxxxxxxxxxxxxxxxxx
```

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

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

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

To run the Sentiment Analysis v3 container, execute the following docker run command. docker run --rm -it -p 5000:5000 --memory 8g --cpus 1 \ mcr.microsoft.com/azure-cognitive-services/textanalytics/sentiment \

Eula=accept \

Billing={ENDPOINT_URI} \

ApiKey={API_KEY} is the endpoint for accessing the Text Analytics API. https://<your-custom-subdomain>.cognitiveservices.azure.com

Box 2: https://contoso.cognitiveservices.azure.com

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

Analytics API. zure.com -

Reference:

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

Question #9 *Topic 1*

You have the following C# method for creating Azure Cognitive Services resources programmatically.

```
static void create_resource(CognitiveServicesManagementClient client, string
resource_name, string kind, string account_tier, string location)
{
  CognitiveServicesAccount parameters =
      new CognitiveServicesAccount(null, null, kind, location, resource_name,
new CognitiveServicesAccountProperties(), new Sku(account_tier));
  var result = client.Accounts.Create(resource_group_name, account_tier,
parameters);
}
```

You need to call the method to create a free Azure resource in the West US Azure region. The resource will be used to generate captions of images automatically.

Which code should you use?

A. create_resource(client, "res1", "ComputerVision", "F0", "westus") **Most Voted**

B. create_resource(client, "res1", "CustomVision.Prediction", "F0", "westus")

C. create_resource(client, "res1", "ComputerVision", "S0", "westus")

D. create_resource(client, "res1", "CustomVision.Prediction", "S0", "westus")

Correct Answer: *A*

Community vote distribution

A (84%) B (16%)

Question #10 *Topic 1*

You successfully run the following HTTP request.

POST https://management.azure.com/subscriptions/18c51a87-3a69-47a8-aedc-a54745f708a1/resourceGroups/RG1/providers/Microsoft.CognitiveServices/accounts/contoso1/regenerateKey?api-version=2017-04-18

Body{"keyName": "Key2"}

What is the result of the request?

A. A key for Azure Cognitive Services was generated in Azure Key Vault.

B. A new query key was generated.

C. The primary subscription key and the secondary subscription key were rotated.

D. The secondary subscription key was reset. **Most Voted**

Correct Answer: *D*

Community vote distribution

D (91%) 9%