Vendor: Microsoft

Exam Code:AI-102

Exam Name: Designing and Implementing a Microsoft Azure AI Solution

Version: Demo

QUESTION 1

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

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

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

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

        ReadOperationResult results;

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

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

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

You need to prevent the GetReadResultAsync method from proceeding until the read operation is complete.

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

(Choose two.)

NOTE: Each correct selection is worth one point.

A. Remove the Guid.Parse(operationId) parameter.

B. Add code to verify the results.Status value.

C. Add code to verify the status of the txtHeaders.Status value.

D. Wrap the call to GetReadResultAsync within a loop that contains a delay.

Correct Answer: BD

Example code :

do

{

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

while ((results.Status == OperationStatusCodes.Running || results.Status == OperationStatusCodes.NotStarted));

Reference:

https://github.com/Azure-Samples/cognitive-services-quickstart-code/blob/master/dotnet/ComputerVision/ComputerVisionQuickstart.cs

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QUESTION 2

HOTSPOT

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

You have the following code segment.

```
foreach (var brand in brands)
{
    if (brand.Confidence >= .75)
        Console.WriteLine($"Logo of {brand.Name} between {brand.Rectangle.X},
{brand.Rectangle.Y} and {brand.Rectangle.W}, {brand.Rectangle.H}");
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The code will return the name of each detected brand with a confidence equal to or higher than 75 percent.	○	○
The code will return coordinates for the bottom-left corner of the rectangle that contains the brand logo of the displayed brands.	○	○
The code will return coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.	○	○

Correct Answer:

Answer Area

Statements	Yes	No
The code will return the name of each detected brand with a confidence equal to or higher than 75 percent.	◉	○
The code will return coordinates for the bottom-left corner of the rectangle that contains the brand logo of the displayed brands.	○	◉
The code will return coordinates for the bottom-right corner of the rectangle that contains the brand logo of the displayed brands.	○	◉

Box 1: Yes

Box 2: Yes

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

Box 3: No

Reference:

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

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QUESTION 3

You are building a multilingual chatbot.

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

Which two Text Analytics APIs should you use? Each correct answer presents part of the solution. (Choose two.)

NOTE: Each correct selection is worth one point.

A. Linked entities from a well-known knowledge base

B. Sentiment Analysis

C. Key Phrases

D. Detect Language

E. Named Entity Recognition

Correct Answer: BD

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
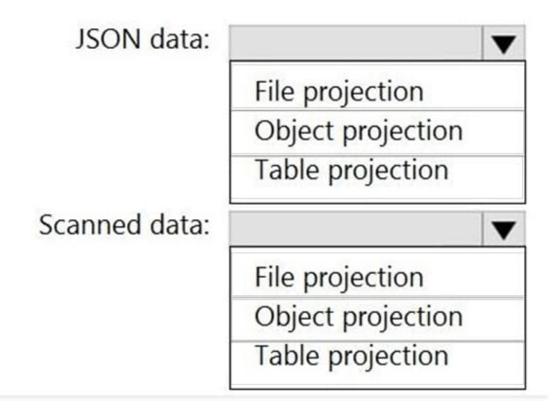

QUESTION 4

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.

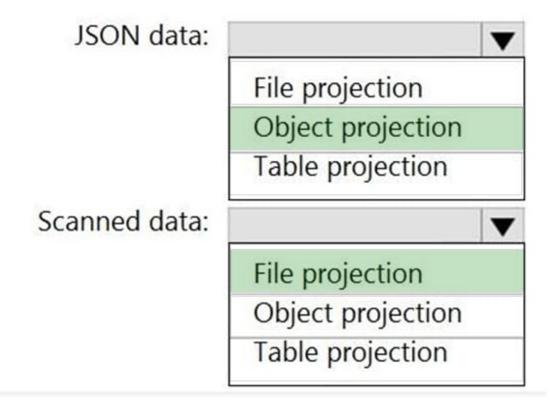NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

JSON data:

File projection
Object projection
Table projection

Scanned data:

File projection
Object projection
Table projection

Correct Answer:

Answer Area

JSON data:	▼

File projection
Object projection
Table projection

Scanned data:	▼

File projection
Object projection
Table projection

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

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QUESTION 5

DRAG DROP

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

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

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

Select and Place:

Actions

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

Answer Area

Correct Answer:

Actions

From the new Language service instance, import the project file.
From the new Language service instance, enable custom text classification.
From the new Language service instance, train and publish the project.

Answer Area

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.

QUESTION 6

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

Correct Answer: B

https://learn.microsoft.com/en-us/azure/cognitive-services/language-service/question-answering/how-to/chit-chat

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QUESTION 7

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

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

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

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

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

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

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

Correct Answer: A

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

QUESTION 8

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

C. documentResults.fields.ReceiptType.confidence > 0.7

D. documentResults.fields.MerchantName.confidence

Correct Answer: B

QUESTION 9

You have an Azure subscription that contains a Language service resource named ta1 and a virtual network named vnet1. You need to ensure that only resources in vnet1 can access ta1.

What should you configure?

A. a network security group (NSG) for vnet1

B. Azure Firewall for vnet1

C. the virtual network settings for ta 1

D. a Language service container for ta1

Correct Answer: C

QUESTION 10

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.

Correct Answer: CDF

Your documents must include a field specifying which groups have access. This information becomes the filter criteria against which documents are selected or rejected from the result set returned to the issuer.

D: A query request targets the documents collection of a single index on a search service.

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

Reference: https://docs.microsoft.com/en-us/azure/search/search-security-trimming-for-azure-search

QUESTION 11

You have an Azure subscription that contains an Azure Cognitive Service for Language resource.

You need to identify the URL of the REST interface for the Language service.

Which blade should you use in the Azure portal?

A. Identity

B. Keys and Endpoint

C. Properties

D. Networking

Correct Answer: B

QUESTION 12

Which Azure Storage service implements the key/value model?

A. Azure Files

B. Azure Blob

C. Azure Table

D. Azure Queue

Correct Answer: C