Question #1 Topic 11

#### **Introductory Info**

Case study -

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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 supp		

### 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.

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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 autocompletion 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
```

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

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 Area**

es 1758/156

Correct Answer:	
Actions	Answer Area
	Upload the video to blob storage.
	Index the video by using the Azure Video Analyzer for Media (previously Video Indexer) API.
Analyze the video by using the Computer Vision API.	Extract the transcript from the Azure Video Analyzer for Media (previously Video Indexer) API.
Extract the transcript from Microsoft Stream.	Translate the transcript by using the Translator API.
Send the transcript to the Language Understanding API as an utterance.	
	es 1750
Upload the video to file storage.	

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 #2 Topic 11

#### **Introductory Info**

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Provide all employees with the ability to edit Q&As. Only senior managers must be able to publish updates.

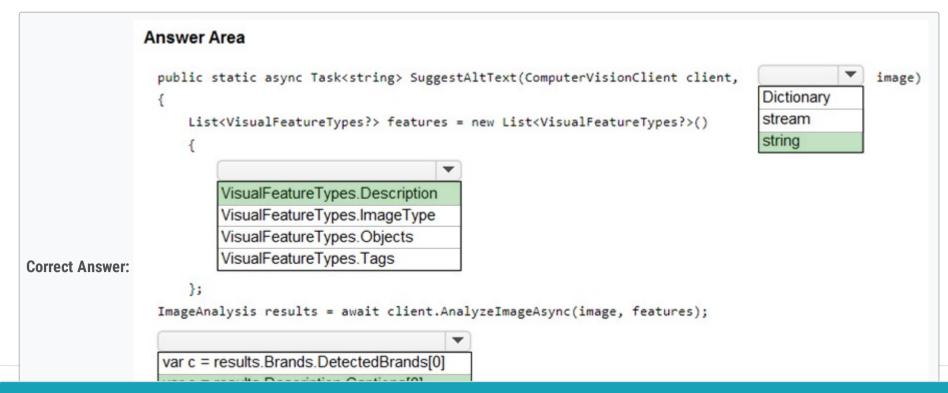
Support purchases by providing information about relevant products to customers. Product displays must include images and warnings when stock levels are low or out of stock.

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      "name": {
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          "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 -
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:
```

You need to develop code to upload images for the product creation project. The solution must meet the accessibility requirements.

#### **Answer Area**

```
public static async Task<string> SuggestAltText(ComputerVisionClient client,
                                                                                                  image)
                                                                                   Dictionary
                                                                                   stream
    List<VisualFeatureTypes?> features = new List<VisualFeatureTypes?>()
                                                                                   string
    {
        VisualFeatureTypes.Description
        VisualFeatureTypes.lmageType
        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);
```



# **Topic 12 - Testlet 4**

```
if(c.Confidence>0.5) return(c.Text);
}
```

#### Reference:

https://github.com/Azure-Samples/cognitive-services-dotnet-sdk-samples/blob/master/documentation-samples/quickstarts/ComputerVision/Program.cs

Question #1 Topic 12

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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	Manager	United Kingdom
Service		
Customer	Agent	United Kingdom
Service		
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.