

Some of the Solution might not correct. Please verify with Microsoft Knowledge/Documentation

Question 1:

You are designing an application to parse images of business forms and upload the data to a database. The upload process will occur once a week.

You need to recommend which services to use for the application. The solution must minimize infrastructure costs.

Which services should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Parse the images:

	▼
Azure Bot Service	
Azure Cognitive Services	
Azure Linguistic Analysis API	

Upload the data to the database:

	▼
Azure API Apps	
Azure Batch AI	
Azure Data Factory	
Azure Functions	

Answer:

Parse the images:

	▼
Azure Bot Service	
Azure Cognitive Services	
Azure Linguistic Analysis API	

Upload the data to the database:

	▼
Azure API Apps	
Azure Batch AI	
Azure Data Factory	
Azure Functions	

Explanation: Box 1: Azure Cognitive Services Azure Cognitive Services include image-processing algorithms to smartly identify, caption, index, and moderate your pictures and videos. Not: Azure Linguistic Analytics API, which provides advanced natural language processing over raw text. Box 2: Azure Data Factory The Azure Data Factory (ADF) is a service designed to allow developers to integrate disparate data sources. It is a platform somewhat like SSIS in the cloud to manage the data you have both on-prem and in the cloud. It provides access to on-premises data in SQL Server and cloud data in Azure Storage (Blob and Tables) and Azure SQL Database. References: <https://azure.microsoft.com/en-us/services/cognitive-services/> <https://www.jamesserra.com/archive/2014/11/what-is-azure-data-factory/>

Question 2:

You need to build an interactive website that will accept uploaded images, and then ask a series of predefined questions based on each image.

Which services should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Dynamically ask questions based on an uploaded image:

▼
Azure Analysis Services
Azure Bot Service
Azure Data Factory
Azure Linguistic Analysis API

Analyze and classify an image:

▼
Bing Image Search
Bing Visual Search
Computer Vision
Video Indexer

Answer:

Dynamically ask questions based on an uploaded image:

▼
Azure Analysis Services
Azure Bot Service
Azure Data Factory
Azure Linguistic Analysis API

Analyze and classify an image:

▼
Bing Image Search
Bing Visual Search
Computer Vision
Video Indexer

Explanation:

Box 1: Azure Bot Service

Box 2: Computer Vision

The Computer Vision Analyze an image feature, returns information about visual content found in an image. Use tagging, domain-specific models, and descriptions in four languages to identify content and label it with confidence. Use Object Detection to get location of thousands of objects within an image. Apply the adult/racy settings to help you detect potential adult content. Identify image types and color schemes in pictures.

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

Question 3

You are designing an AI solution that will analyze millions of pictures.

You need to recommend a solution for storing the pictures. The solution must minimize costs.

Which storage solution should you recommend?

- A. an Azure Data Lake store
- B. Azure File Storage
- C. Azure Blob storage
- D. Azure Table storage

Answer: C and A (partial point)

Explanation:

Data Lake will be a bit more expensive although they are in close range of each other. Blob storage has more options for pricing depending upon things like how frequently you need to access your data (cold vs hot storage).

References: <http://blog.pragmaticworks.com/azure-data-lake-vs-azure-blob-storage-in-data-warehousing>

Question 4

You have a Face API solution that updates in real time. A pilot of the solution runs successfully on a small dataset.

When you attempt to use the solution on a larger dataset that continually changes, the performance degrades, slowing how long it takes to recognize existing faces.

You need to recommend changes to reduce the time it takes to recognize existing faces without increasing costs.

What should you recommend?

- A. Change the solution to use the Computer Vision API instead of the Face API.
- B. Separate training into an independent pipeline and schedule the pipeline to run daily.
- C. Change the solution to use the Bing Image Search API instead of the Face API.
- D. Distribute the face recognition inference process across many Azure Cognitive Services instances.

Correct Answer: B

Incorrect Answers:

A: The purpose of Computer Vision is to inspect each image associated with an incoming article to (1) scrape out written words from the image and (2) determine what types of objects are present in the image.

C: The Bing API provides an experience similar to Bing.com/search by returning search results that Bing determines are relevant to a user's query. The results include Web pages and may also include images, videos, and more.

D: That would increase cost.

References:

<https://github.com/Azure/cognitive-services>

Question 5

You have several AI applications that use an Azure Kubernetes Service (AKS) cluster. The cluster supports a maximum of 32 nodes.

You discover that occasionally and unpredictably, the application requires more than 32 nodes.

You need to recommend a solution to handle the unpredictable application load.

Which scaling method should you recommend?

- A. horizontal pod autoscaler
- B. cluster autoscaler
- C. manual scaling
- D. Azure Container Instances

Suggested Answer: B

To keep up with application demands in Azure Kubernetes Service (AKS), you may need to adjust the number of nodes that run your workloads. The cluster autoscaler component can watch for pods in your cluster that can't be scheduled because of resource constraints. When issues are detected, the number of nodes is increased to meet the application demand. Nodes are also regularly checked for a lack of running pods, with the number of nodes then decreased as needed. This ability to automatically scale up or down the number of nodes in your AKS cluster lets you run an efficient, cost-effective cluster.

References:

<https://docs.microsoft.com/en-us/azure/aks/cluster-autoscaler>

Question 6

Your company has 1,000 AI developers who are responsible for provisioning environments in Azure. You need to control the type, size, and location of the resources that the developers can provision. What should you use?

- A. Azure Key Vault
- B. Azure service principals
- C. Azure managed identities
- D. Azure Security Center
- E. Azure Policy

Correct Answer: *B or D*

Question 7

You are designing an AI solution in Azure that will perform image classification.

You need to identify which processing platform will provide you with the ability to update the logic over time. The solution must have the lowest latency for inferencing without having to batch.

Which compute target should you identify?

- A. graphics processing units (GPUs)
- B. field-programmable gate arrays (FPGAs)
- C. central processing units (CPUs)
- D. application-specific integrated circuits (ASICs)

Correct Answer: B

FPGAs, such as those available on Azure, provide performance close to ASICs. They are also flexible and reconfigurable over time, to implement new logic.

Incorrect Answers:

D: ASICs are custom circuits, such as Google's TensorFlow Processor Units (TPU), provide the highest efficiency. They can't be reconfigured as your needs change.

References:

<https://docs.microsoft.com/en-us/azure/machine-learning/service/concept-accelerate-with-fpgas>

Question 8

You have a solution that runs on a five-node Azure Kubernetes Service (AKS) cluster. The cluster uses an N-series virtual machine.

An Azure Batch AI process runs once a day and rarely on demand.

You need to recommend a solution to maintain the cluster configuration when the cluster is not in use.

The solution must not incur any compute costs.

What should you include in the recommendation?

- A. Downscale the cluster to one node
- B. Downscale the cluster to zero nodes
- C. Delete the cluster

Correct Answer: A

An AKS cluster has one or more nodes.

References:

<https://docs.microsoft.com/en-us/azure/aks/concepts-clusters-workloads>

Question 9

You are designing an AI solution that will be used to find buildings in aerial pictures.

Users will upload the pictures to an Azure Storage account. A separate JSON document will contain for the pictures.

The solution must meet the following requirements:

- ☞ Store metadata for the pictures in a data store.
- ☞ Run a custom vision Azure Machine Learning module to identify the buildings in a picture and the position of the buildings' edges.
- ☞ Run a custom mathematical module to calculate the dimensions of the buildings in a picture based on the metadata and data from the vision module.

You need to identify which Azure infrastructure services are used for each component of the AI workflow. The solution must execute as quickly as possible.

What should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Location to store the metadata:	<input type="text" value=""/>
	<input type="checkbox"/> Azure Blob storage
	<input type="checkbox"/> Azure Cosmos DB
	<input type="checkbox"/> Azure File Storage
Virtual machine series to run the vision module:	<input type="text" value=""/>
	<input type="checkbox"/> A
	<input type="checkbox"/> F
	<input type="checkbox"/> NV
Virtual machine series to run the mathematical module:	<input type="text" value=""/>
	<input type="checkbox"/> A
	<input type="checkbox"/> F
	<input type="checkbox"/> NV

Correct Answer:

Answer Area

Location to store the metadata:	<input type="text" value=""/>
	<input checked="" type="checkbox"/> Azure Blob storage
	<input type="checkbox"/> Azure Cosmos DB
	<input type="checkbox"/> Azure File Storage
Virtual machine series to run the vision module:	<input type="text" value=""/>
	<input type="checkbox"/> A
	<input type="checkbox"/> F
	<input checked="" type="checkbox"/> NV
Virtual machine series to run the mathematical module:	<input type="text" value=""/>
	<input type="checkbox"/> A
	<input checked="" type="checkbox"/> F
	<input type="checkbox"/> NV

Box 1: Azure Blob Storage -

Containers and blobs support custom metadata, represented as HTTP headers.

Box 2: NV -

The NV-series enables powerful remote visualisation workloads and other graphics-intensive applications backed by the NVIDIA Tesla M60 GPU.

Note: The N-series is a family of Azure Virtual Machines with GPU capabilities. GPUs are ideal for

compute and graphics-intensive workloads, helping customers to fuel innovation through scenarios like high-end remote visualisation, deep learning and predictive analytics.

Box 3: F -

F-series VMs feature a higher CPU-to-memory ratio. Example use cases include batch processing, web servers, analytics and gaming.

Incorrect:

A-series VMs have CPU performance and memory configurations best suited for entry level workloads like development and test.

References:

<https://azure.microsoft.com/en-in/pricing/details/virtual-machines/series/>

Question 10

You need to build a solution to monitor Twitter. The solution must meet the following requirements:

- ☞ Send an email message to the marketing department when negative Twitter messages are detected.
- ☞ Run sentiment analysis on Twitter messages that mention specific tags.
- ☞ Use the least amount of custom code possible.

Which two services should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure Databricks
- B. Azure Stream Analytics
- C. Azure Functions
- D. Azure Cognitive Services
- E. Azure Logic Apps

Correct Answer: *B D*

Question 11

You need to configure security for an Azure Machine Learning service used by groups of data scientists. The groups must have access to only their own experiments and must be able to grant permissions to the members of their team.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Grant permissions to:	<input type="text"/>
	A resource group
	A subscription
	A workspace
Role to assign to manage access:	<input type="text"/>
	Contributor
	Owner
	Reader

Correct answer

Box1 : Workspace

Box 2: Owner

Question 12

You plan to build an application that will perform predictive analytics. Users will be able to consume the application data by using Microsoft Power BI or a custom website.

You need to ensure that you can audit application usage.

Which auditing solution should you use?

- A. Azure Storage Analytics
- B. Azure Application Insights
- C. Azure diagnostics logs
- D. Azure Active Directory (Azure AD) reporting

Correct Answer: *D*

References:

<https://docs.microsoft.com/en-us/azure/active-directory/reports-monitoring/concept-audit-logs>

Question 13

You need to build a sentiment analysis solution that will use input data from JSON documents and PDF documents. The JSON documents must be processed in batches and aggregated.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

JSON documents:

	▼
Azure Blob storage	
Azure Cosmos DB	
Azure Data Lake	
Azure Table storage	

PDF documents:

	▼
Azure Blob storage	
Azure Cosmos DB	
Azure Data Lake	
Azure Table storage	

Correct Answer:

Answer Area

JSON documents:

	▼
Azure Blob storage	
Azure Cosmos DB	
Azure Data Lake	
Azure Table storage	

PDF documents:

	▼
Azure Blob storage	
Azure Cosmos DB	
Azure Data Lake	
Azure Table storage	

Question 14

You are developing a mobile application that will perform optical character recognition (OCR) from photos.

The application will annotate the photos by using metadata, store the photos in Azure Blob storage, and then score the photos by using an Azure Machine Learning model.

What should you use to process the data?

- A. Azure Event Hubs
- B. Azure Functions
- C. Azure Stream Analytics
- D. Azure Logic Apps

Correct Answer: B or C

Question 15

You create an Azure Cognitive Services resource.

A data scientist needs to call the resource from Azure Logic Apps.

Which two values should you provide to the data scientist? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Endpoint URL
- B. Resource name
- C. Access key
- D. Resource group name
- E. Subscription ID

Correct Answer: A, C

Question 16

You plan to deploy an AI solution that tracks the behavior of 10 custom mobile apps. Each mobile app has several thousand users.

You need to recommend a solution for real-time data ingestion for the data originating from the mobile app users.

Which Microsoft Azure service should you include in the recommendation?

- A. Azure Event Hubs
- B. Azure Service Bus queries
- C. Azure Service Bus topics and subscriptions
- D. Apache Storm on Azure HDInsight

Correct answer: A

Question 17

HOTSPOT -

You are designing a solution that will ingest temperature data from IoT devices, calculate the average temperature, and then take action based on the aggregated data. The solution must meet the following requirements:

- ☞ Minimize the amount of uploaded data.
- ☞ Take action based on the aggregated data as quickly as possible.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Service to use:

▼
Apache Hive
Azure Data Factory
Azure Functions
Azure Stream Analytics

Location to deploy the job:

▼
A Web Job in Azure
An Azure IoT Edge device
Azure Event Hubs
Azure Notification Hubs

Answer Area

Service to use:

▼
Apache Hive
Azure Data Factory
Azure Functions
Azure Stream Analytics

Location to deploy the job:

▼
A Web Job in Azure
An Azure IoT Edge device
Azure Event Hubs
Azure Notification Hubs

Note: Azure Stream Analytics is also acceptable

Question 18

You have a database that contains sales data.

You plan to process the sales data by using two data streams named Stream1 and Stream2. Stream1 will be used for purchase order data. Stream2 will be used for reference data.

The reference data is stored in CSV files.

You need to recommend an ingestion solution for each data stream.

What two solutions should you recommend? Each correct answer is a complete solution.

NOTE: Each correct selection is worth one point.

- A. an Azure event hub for Stream1 and Azure Blob storage for Stream2
- B. Azure Blob storage for Stream1 and Stream2
- C. an Azure event hub for Stream1 and Stream2
- D. Azure Blob storage for Stream1 and Azure Cosmos DB for Stream2
- E. Azure Cosmos DB for Stream1 and an Azure event hub for Stream2

Correct Answer: A B

Question 19

You are developing a Computer Vision application.

You plan to use a workflow that will load data from an on-premises database to Azure Blob storage, and then connect to an Azure Machine Learning service.

What should you use to orchestrate the workflow?

- A. Azure Kubernetes Service (AKS)
- B. Azure Pipelines
- C. Azure Data Factory
- D. Azure Container Instances

Correct Answer: C

Question 20

You are designing a solution that will ingest data from an Azure IoT Edge device, preprocess the data in Azure Machine Learning, and then move the data to Azure HDInsight for further processing.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Machine Learning module to use to move the data into HDInsight:	<table border="1"><tr><td>▼</td></tr><tr><td>Export Data</td></tr><tr><td>Load Trained Model</td></tr><tr><td>Partition and Sample</td></tr><tr><td>Unpack Zipped Datasets</td></tr></table>	▼	Export Data	Load Trained Model	Partition and Sample	Unpack Zipped Datasets
▼						
Export Data						
Load Trained Model						
Partition and Sample						
Unpack Zipped Datasets						
Query type to use:	<table border="1"><tr><td>▼</td></tr><tr><td>Apache Hive</td></tr><tr><td>Apache Spark</td></tr><tr><td>C#</td></tr><tr><td>Transact-SQL</td></tr></table>	▼	Apache Hive	Apache Spark	C#	Transact-SQL
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Apache Hive						
Apache Spark						
C#						
Transact-SQL						
Output the data to:	<table border="1"><tr><td>▼</td></tr><tr><td>Azure Cosmos DB</td></tr><tr><td>Azure Data Lake</td></tr><tr><td>Azure Table storage</td></tr><tr><td>HDFS</td></tr></table>	▼	Azure Cosmos DB	Azure Data Lake	Azure Table storage	HDFS
▼						
Azure Cosmos DB						
Azure Data Lake						
Azure Table storage						
HDFS						

Answer Area

Machine Learning module to use to move the data into HDInsight:	<table border="1"><tr><td>▼</td></tr><tr><td>Export Data</td></tr><tr><td>Load Trained Model</td></tr><tr><td>Partition and Sample</td></tr><tr><td>Unpack Zipped Datasets</td></tr></table>	▼	Export Data	Load Trained Model	Partition and Sample	Unpack Zipped Datasets
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Export Data						
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Apache Hive						
Apache Spark						
C#						
Transact-SQL						
Output the data to:	<table border="1"><tr><td>▼</td></tr><tr><td>Azure Cosmos DB</td></tr><tr><td>Azure Data Lake</td></tr><tr><td>Azure Table storage</td></tr><tr><td>HDFS</td></tr></table>	▼	Azure Cosmos DB	Azure Data Lake	Azure Table storage	HDFS
▼						
Azure Cosmos DB						
Azure Data Lake						
Azure Table storage						
HDFS						

Question 21

You are developing an application that will perform clickstream analysis. The application will ingest and analyze millions of messages in the real time.

You need to ensure that communication between the application and devices is bidirectional.

What should you use for data ingestion and stream processing? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Data ingestion:

	▼
Azure Event Hubs	
Azure IoT Hub	
Azure Queue storage	

Stream processing:

	▼
Azure HDInsight with Apache HBase	
Azure HDInsight with Apache Storm	
Azure HDInsight with Azure Machine Learning service	

Correct Answer:

Box 1 – Azure IoT hub

Box 2 – Azure HDInsight with Apache Storm

Question 22

You plan to design a solution for an AI implementation that uses data from IoT devices.

You need to recommend a data storage solution for the IoT devices that meets the following requirements:

- ☞ Allow data to be queried in real-time as it streams into the solution.
- ☞ Provide the lowest amount of latency for loading data into the solution.

What should you include in the recommendation?

- A. a Microsoft Azure Table Storage solution
- B. a Microsoft Azure HDInsight R Server cluster
- C. a Microsoft Azure HDInsight Hadoop cluster
- D. a Microsoft Azure SQL database that has In-Memory OLTP enabled

Correct Answer: C

Question 23

Your company has factories in 10 countries. Each factory contains several thousand IoT devices. The devices present status and trending data on a dashboard.

You need to ingest the data from the IoT devices into a data warehouse.

Which two Microsoft Azure technologies should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure Stream Analytics
- B. Azure Data Factory
- C. an Azure HDInsight cluster
- D. Azure Batch
- E. Azure Data Lake

Correct Answer: A E

Question 23

You are designing an AI workflow that will aggregate data stored in Azure as JSON documents.

You expect to store more than 2 TB of new data daily.

You need to choose the data storage service for the data. The solution must minimize costs.

Which data storage service should you choose?

- A. Azure Manage Disks
- B. Azure Blob Storage
- C. Azure File Storage
- D. Azure Data Lake Storage

Correct Answer: B, D partial points

Question 25

You design an AI workflow that combines data from multiple data sources for analysis. The data sources are composed of:

☞ JSON files uploaded to an Azure Storage account

☞ On-premises Oracle databases

☞ Azure SQL databases

Which service should you use to ingest the data?

- A. Azure Data Factory
- B. Azure SQL Data Warehouse
- C. Azure Data Lake Storage
- D. Azure Databricks

Correct Answer: A

Question 26

You have thousands of images that contain text.

You need to process the text from the images to a machine-readable character stream.

Which Azure Cognitive Services service should you use?

- A. the Image Moderation API
- B. Text Analytics
- C. Translator Text
- D. Computer Vision

Correct Answer: D

Question 27

You design an AI solution that uses an Azure Stream Analytics job to process data from an Azure IoT hub. The IoT hub receives time series data from thousands of IoT devices at a factory.

The job outputs millions of messages per second. Different applications consume the messages as they are available. The messages must be purged.

You need to choose an output type for the job.

What is the best output type to achieve the goal? More than one answer choice may achieve the goal.

- A. Azure Event Hubs
- B. Azure SQL Database
- C. Azure Blob storage
- D. Azure Cosmos DB

Correct answer: D or C

Question 28

You need to design an application that will analyze real-time data from financial feeds.

The data will be ingested into Azure IoT Hub. The data must be processed as quickly as possible in the order in which it is ingested.

Which service should you include in the design?

- A. Azure Data Factory
- B. Azure Queue storage
- C. Azure Stream Analytics
- D. Azure Notification Hubs

Correct Answer: D or C

Question 29

You are designing an AI solution that will provide feedback to teachers who train students over the Internet. The students will be in classrooms located in remote areas. The solution will capture video and audio data of the students in the classrooms.

You need to recommend Azure Cognitive Services for the AI solution to meet the following requirements:

- ☞ Alert teachers if a student seems angry or distracted.
- ☞ Identify each student in the classrooms for attendance purposes.
- ☞ Allow the teachers to log the text of conversations between themselves and the students.

Which Cognitive Services should you recommend?

- A. Computer Vision, Text Analytics, and Face API
- B. Video Indexer, Face API, and Text Analytics
- C. Computer Vision, Speech to Text, and Text Analytics
- D. Text Analytics, QnA Maker, and Computer Vision
- E. Video Indexer, Speech to Text, and Face API

Correct Answer: E

Question 30

You are designing a solution that will use the Azure Content Moderator service to moderate user-generated content.

You need to moderate custom predefined content without repeatedly scanning the collected content. Which API should you use?

- A. Term List API
- B. Text Moderation API
- C. Image Moderation API
- D. Workflow API

Correct Answer A

Question 31

Introductory Info Overview -

Contoso, Ltd. has an office in New York to serve its North American customers and an office in Paris to serve its European customers.

Existing Environment -

Infrastructure -

Each office has a small data center that hosts Active Directory services and a few off-the-shelf software solutions used by internal users.

The network contains a single Active Directory forest that contains a single domain named contoso.com.

Azure Active Directory (Azure AD) Connect is used to extend identity management to Azure.

The company has an Azure subscription. Each office has an Azure ExpressRoute connection to the subscription. The New York office connects to a virtual network hosted in the US East 2 Azure region.

The Paris office connects to a virtual network hosted in the West Europe Azure region.

The New York office has an Azure Stack Development Kit (ASDK) deployment that is used for development and testing.

Current Business Model -

Contoso has a web app named Bookings hosted in an App Service Environment (ASE). The ASE is in the virtual network in the East US 2 region. Contoso employees and customers use Bookings to reserve hotel rooms.

Data Environment -

Bookings connects to a Microsoft SQL Server database named hotelDB in the New York office.

The database has a view named vwAvailability that consolidates columns from the tables named Hotels, Rooms, and RoomAvailability. The database contains data that was collected during the last 20 years.

Problem Statements -

Contoso identifies the following issues with its current business model:

European users report that access to Booking is slow, and they lose customers who must wait on the phone while they search for available rooms.

Users report that Bookings was unavailable during an outage in the New York data center for more than 24 hours.

Requirements -

Contoso identifies the following issues with its current business model:

European users report that access to Bookings is slow, and they lose customers who must wait on the phone while they search for available rooms.

Users report that Bookings was unavailable during on outage in the New York data center for more than 24 hours.

Business Goals -

Contoso wants to provide a new version of the Bookings app that will provide a highly available, reliable service for booking travel packages by interacting with a chatbot named Butler.

Contoso plans to move all production workloads to the cloud.

Technical requirements -

Contoso identifies the following technical requirements:

Data scientists must test Butler by using ASDK.

Whenever possible, solutions must minimize costs.

Butler must greet users by name when they first connect.

Butler must be able to handle up to 10,000 messages a day.

Butler must recognize the users' intent based on basic utterances.

All configurations to the Azure Bot Service must be logged centrally.

Whenever possible, solutions must use the principle of least privilege.

Internal users must be able to access Butler by using Microsoft Skype for Business.

The new Bookings app must provide a user interface where users can interact with Butler.

Users in an Azure AD group named KeyManagers must be able to manage keys for all Azure Cognitive Services.

Butler must provide users with the ability to reserve a room, cancel a reservation, and view existing reservations.

The new Bookings app must be available to users in North America and Europe if a single data center or Azure region fails.

For continuous improvement, you must be able to test Butler by sending sample utterances and comparing the chatbot's responses to the actual intent.

Question: Which two services should be implemented so that Butler can find available rooms on the technical requirements? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. QnA Maker
- B. Bing Entity Search
- C. Language Understanding (LUIS)
- D. Azure Search
- E. Content Moderator

Correct Answer: C and E

Question 31

Your company is building custom models that integrate into microservices architecture on Azure Kubernetes Services (AKS).

The model is built by using Python and published to AKS.

You need to update the model and enable Azure Application Insights for the model.

What should you use?

- A. the Azure CLI
- B. MLNET Model Builder
- C. the Azure Machine Learning SDK
- D. the Azure portal

Correct answer C and D

Question 32

Your company plans to develop a mobile app to provide meeting transcripts by using speech-to-text. Audio from the meetings will be streamed to provide real-time transcription.

You need to recommend which task each meeting participant must perform to ensure that the transcripts of the meetings can identify all participants.

Which task should you recommend?

- A. Record the meeting as an MP4.
- B. Create a voice signature.
- C. Sign up for Azure Speech Services.
- D. Sign up as a guest in Azure Active Directory (Azure AD)

Correct Answer: B

Question 33

You are designing an AI solution that will provide feedback to teachers who train students over the Internet. The students will be in classrooms located in remote areas. The solution will capture video and audio data of the students in the classrooms.

You need to recommend Azure Cognitive Services for the AI solution to meet the following requirements:

- ☞ Alert teachers if a student facial expression indicates the student is angry or scared.
- ☞ Identify each student in the classrooms for attendance purposes.
- ☞ Allow the teachers to log voice conversations as text.

Which Cognitive Services should you recommend?

- A. Face API and Text Analytics
- B. Computer Vision and Text Analytics
- C. QnA Maker and Computer Vision
- D. Speech to Text and Face API

Correct Answer: D

Question 34

You need to evaluate trends in fuel prices during a period of 10 years. The solution must identify unusual fluctuations in prices and produce visual representations.

Which Azure Cognitive Services API should you use?

- A. Anomaly Detector
- B. Computer Vision
- C. Text Analytics
- D. Bing Autosuggest

Correct Answer: A

Question 35

You plan to deploy an Azure Data Factory pipeline that will perform the following:

- ⇒ Move data from on-premises to the cloud.
- ⇒ Consume Azure Cognitive Services APIs.

You need to recommend which technologies the pipeline should use. The solution must minimize custom code.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Move data from on-premises to the cloud:

	▼
Azure-SSIS Integration Runtime	
Common language runtime (CLR)	
Integration Runtime (IR)	
Self-hosted integration runtime	

Consume Cognitive Services APIs:

	▼
Azure API Management	
Azure Logic Apps	
WebJobs in Azure	

Answer Area

Move data from on-premises to the cloud:

	▼
Azure-SSIS Integration Runtime	
Common language runtime (CLR)	
Integration Runtime (IR)	
Self-hosted integration runtime	

Consume Cognitive Services APIs:

	▼
Azure API Management	
Azure Logic Apps	
WebJobs in Azure	

Question 36

You are configuring data persistence for a Microsoft Bot Framework application. The application requires a structured NoSQL cloud data store.

You need to identify a storage solution for the application. The solution must **minimize costs**. What should you identify?

- A. Azure Blob storage
- B. Azure Cosmos DB
- C. Azure HDInsight
- D. Azure Table storage

Correct Answer : D or A (partial points)

Question 37

You need to build an API pipeline that analyzes streaming data. The pipeline will perform the following:

- ☞ Visual text recognition
- ☞ Audio transcription
- ☞ Sentiment analysis
- ☞ Face detection

Which Azure Cognitive Services should you use in the pipeline?

- Custom Speech Service
- Face API
- Text Analytics
- Video Indexer

Correct Answer: D

Azure Video Indexer is a cloud application built on Azure Media Analytics, Azure Search, Cognitive Services (such as the Face API, Microsoft Translator, the Computer Vision API, and Custom Speech Service). It enables you to extract the insights from your videos using Video Indexer video and audio models described below:

- ☞ Visual text recognition (OCR): Extracts text that is visually displayed in the video.
- ☞ Audio transcription: Converts speech to text in 12 languages and allows extensions.
- ☞ Sentiment analysis: Identifies positive, negative, and neutral sentiments from speech and visual text.
- ☞ Face detection: Detects and groups faces appearing in the video.

Question 38

☞ Image recognition

☞ Deep learning that uses convolutional neural networks.

You need to select a compute infrastructure for each model. The solution must minimize the processing time.

What should you use for each model?

Compute Infrastructures

Compute optimized virtual machines

Memory optimized virtual machines

GPU optimized virtual machines

Image recognition:

Deep learning that uses convolutional neural networks:

Correct Answer:

- GPU for both