If you are planning to process in batches which technology should you use?

Data Lake

Q25?!

Real time data ingestion for data originating from the mobile app users (each app has thousands of users)

Event Hubs

How do you move cloud analytics and business logic to devises so your organisation can focus on business insights instead of data management?

Azure IoT Edge device

What is a Azure Blob Storage and describe Hot, Cool and Archival?

Blob stands for binary large object. It is great for unstructured data (log, images, video etc..)

Hot means it has high storage cost but low transacation cost (When you want to access the data frequently)

Cool means it has low storage cost, high transaction cost (Less frequent, more storage)

Archival (Lowest storage cost and highest transactional cost)

The hierarchy is storage account -> Containers -> Blob -> Blocks

Discuss costs related to Azure Blob

Blocks in size of 4mb so 20 mb that will be 5 operation.

Write operation (H-C, C-A)

Read operation (A-C, A- H, are known as read operation

Archival data will be always ofline. This is because u don’t anticipate accessing it. Change it to hot or cool to access will cost.

Hot data does not cost when you access but you have paid for a higher storage. Whereas cool data will cost to access but you paid less for the storage as you don’t anticipate accessing it frequently.

DLP is the data life cycle policy to help structure rules in place.

Data Lake vs Azure Blob

Data Lake is hierarchical and can have unlimited data. It uses different protocal (OAuth2) to Azure Blob (HMAC aka OAuth1).

Azure Blob has flat file name structures and has a limit on the amount of data that can be accessed. It is more of a general purpose storage container, whereas big data scenarios would benefit more from Data Lake. It has a Hadoop type file system that allows for parrel processing to handle big data.

How can you anonymize data before sent to IoT Hub?

Create a storage container, create an Azure Stream Analytics Edge Job and add the job to the IoT devices in IoT Hub.

In Azure Studio, if you have big data how can you process this information.

Export data to hive option, then use Apache Hive (HiveQL is a language similar to SQL, used to summarize, query and analysis of data). Data Lake is the default location of HDInsight clusters

What language can Azure Stream Analytics use to move and query data?

T SQL

How do you analyse data from thousands of devices ?

IoT Hub to connect to devices, and then use Azure Stream Analytics into Event Hubs

Event Hubs can only take in data, whereas IoT Hub is bidirectional for when information needs to be sent back.

Data may be stored on premises, and we need to access the data weekly. How do we access this data securely?

Azure App Service Hybrid Connections allows this, as if the resources where located on the same private network. This prevents complicated changes such as config changes.

Describe Three Cognitive Services Apps

Video Indexer allows you to extract insights from your videos. This extracts mretadata such as spoken words, written text, faces, speakers, emotions, topics,brands and scenes.

Face API allows you to obtain emotion recognition confidence across different emotions. You can search. Identify and match faces in your private repository of up to 1 million people.

Speech -to -text allows real time transcription of audio streams into text.

What is the lowest privilege for a developer where they can still access the keys used by the resource?

Cognitive Services User

When to use Kafka over IoT Hub?

When the Mbps of events is > 24 Mb per second

How can you moderate content on your platforms such as bad language?

Content moderator can be used. Using Term List Management API you can add a custom predefined list of words.

You develop a custom application that uses a token to connect to Azure Cognitive Services resources.  
A new security policy requires that all access keys are changed every 30 days.  
You need to recommend a solution to implement the security policy.

Step 1: Generate new keys in the Cognitive Service resources

Step 2: Retrieve a token from the Cognitive Services endpoint  
Step 3: Update the custom application to use the new authorization