# Question58

Case Study

Complete the Case Study

* Solution Evaluation

**Instructions**  
  
This case study contains a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.  
  
Note: You cannot go back or review questions of this type on the actual certification exam.

## Question 58.1

You are a data architect for a polling company. Each pollster submits data over Advanced Message Queuing Protocol (AMQP). You want to retrieve the data in real time so that you can extract relevant information, transform it, and then send it to Power BI.  
  
You need to implement the solution.  
  
Solution: You do the following:

* Create an Event Hub instance.
* Create a Stream Analytics job that uses a query to extract data.

Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3
* Question 4

Yes

No

## Question 58.2

You are a data architect for a polling company. Each pollster submits data over Advanced Message Queuing Protocol (AMQP). You want to retrieve the data in real time so that you can extract relevant information, transform it, and then send it to Power BI.  
  
You need to implement the solution.  
  
Solution: You do the following:

* Create an IoT Hub instance.
* Create a Stream Analytics job that uses a query to extract data.

Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3
* Question 4

Yes

No

## Question 58.3

You are a data architect for a polling company. Each pollster submits data over Advanced Message Queuing Protocol (AMQP). You want to retrieve the data in real time so that you can extract relevant information, transform it, and then send it to Power BI.  
  
You need to implement the solution.  
  
Solution: You do the following:

* Create an Azure Databricks instance.
* Create an Azure Automation runbook that extracts and queries data from Databricks.

Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3
* Question 4

Yes

No

## Question 58.4

You are a data architect for a polling company. Each pollster submits data over Advanced Message Queuing Protocol (AMQP). You want to retrieve the data in real time so that you can extract relevant information, transform it, and then send it to Power BI.  
  
You need to implement the solution.  
  
Solution: You do the following:

* Create an Azure Relay service.
* Create an Azure Function app that extracts and queries data from Azure Relay.

Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3
* Question 4

Yes

No

# Question62

Case Study

Complete the Case Study

* Solution Evaluation

**Instructions**  
  
This case study contains a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.  
  
Note: You cannot go back or review questions of this type on the actual certification exam.

## Question 62.1

You are designing a real-time processing solution using Azure Stream Analytics. You need to ingest data from IoT sensors installed in driverless vehicles. You also need to support a 200 MB reference data input to correlate related static values.  
  
Solution: You use Azure Event Hubs for stream data input and Azure SQL Database for reference input.  
  
Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3

Yes

No

## Question 62.2

You are designing a real-time processing solution using Azure Stream Analytics. You need to ingest data from IoT sensors installed in driverless vehicles. You also need to support a 200 MB reference data input to correlate related static values.  
  
Solution: You use Azure IoT Hub for stream data input and Azure Blob storage for reference input.  
  
Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3

No

Yes

## Question 62.3

You are designing a real-time processing solution using Azure Stream Analytics. You need to ingest data from IoT sensors installed in driverless vehicles. You also need to support a 200 MB reference data input to correlate related static values.  
  
Solution: You use Azure Event Hubs for stream data input and Azure Cosmos DB for reference input.  
  
Does this solution meet the goal?

Complete the Case Study

* Solution Evaluation
* Question 1
* Question 2
* Question 3

No

Yes

# Question128

You are designing a real-time processing solution by using Stream Analytics. You want to group streaming events that arrive at a similar time and filter out time periods where no data exists.  
  
You need to choose the appropriate windowing function.  
  
Which windowing function should you choose?

Choose the correct answer

Tumbling

Hopping

Sliding

Session

# Question129

You are designing a real-time processing solution by using Stream Analytics. You want to count the number of weather reports that are received per time zone every minute.  
  
You need to choose the appropriate windowing function.  
  
Which windowing function should you choose?

Choose the correct answer

Hopping

Session

Tumbling

Sliding

# Question130

You are designing a real-time processing solution by using Stream Analytics. You want to count the number of weather reports received in a time zone during the last 30 seconds. If there are no weather reports, then no output should be displayed.  
  
You need to choose the appropriate windowing function.  
  
Which windowing function should you choose?

Choose the correct answer

Session

Tumbling

Hopping

Sliding

# Question131

You are designing a real-time processing solution by using Stream Analytics. Every five seconds you want to retrieve the number of weather reports by time zone during the last 30 seconds. It is fine for the events to overlap. Output should be generated even if there are no events.  
  
You need to choose the appropriate windowing function.  
  
Which windowing function should you choose?

Choose the correct answer

Tumbling

Sliding

Hopping

Session

# Question132

You are designing a real-time processing solution by using Azure Databricks. Source data exists in an Azure blob storage account. You must be able to query the data by using the following query:  
  
SELECT \* FROM source LIMIT 10  
  
You need to determine the type of notebook to create.  
  
Which type of notebook should you create?

Choose the correct answer

Scala

SQL

Python

R

# Question133

You are designing a real-time processing solution by using Azure Databricks. The data engineer that will implement the solution is familiar with object-oriented programming languages. The data engineer wants to take advantage of static type-checking.  
  
You need to choose the language for the notebook that you are creating.  
  
Which language should you use?

Choose the correct answer

Python

R

SQL

Scala

# Question134

Your company manages a large fleet of delivery vehicles. All delivery vehicles have IoT sensors installed. Data from the sensors is collected and sent to Azure Event Hub. Data should go to Azure Power BI to generate real-time visualizations. This must be implemented through a high-speed, high-volume processing environment.  
  
You need to recommend a solution.  
  
What should you recommend?

Choose the correct answer

Azure HDInsight with Storm

Azure HDInsight with Spark Streaming

Apache Spark in Azure Databricks

Azure Stream Analytics

# Question135

Your company uses an application that collects and processes scientific data and streams its output results. You are designing a cloud-based solution that performs additional real-time analysis of the data. Final results should be delivered to a real-time dashboard.  
  
You need to design the logical flow for an Azure Stream Analytics solution.  
  
Which three steps must you include in your logical flow? To answer, move the appropriate steps from the list of possible steps to the answer area and arrange them in the correct order.

Create a list in the correct order

Possible steps

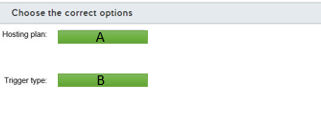
Steps in order

* Build queries that output to Azure Data Lake Storage.
* Ingress data from the Azure Data Lake Storage instance.
* Send application data to an Azure Data Lake Storage instance.
* Send application data to an Azure Event Hub instance.
* Ingress data from the Azure Event Hub instance.
* Build queries that output to Power BI.

# Question136

You have an Azure Function-based real-time streaming solution. Data for processing is uploaded into Azure Blob Storage, and new blobs should be processed with minimal delay. The solution should scale automatically to meet processing requirements, and function instances should be removed when they are no longer needed. Solution cost should be minimized.  
  
You need to recommend solutions for the function hosting plan and trigger type.  
  
What should you recommend? To answer, select the appropriate options from the drop-down menus.

Choose the correct options



A)

1. App Service plan
2. Consumption plan
3. Premium plan

B)

1. Blob
2. Even Hub
3. Queue
4. Time

# Question137

You are designing a real-time IoT data analysis solution using Azure Stream Analytics. This will be a mission critical application.  
  
You need to ensure that your solution remains available during Azure service plan updates even if an update error occurs.  
  
Which two actions should you recommend? Each correct answer presents part of the complete solution.

Choose the correct answers

Deploy identical jobs to two unpaired regions.

Deploy identical jobs to three unpaired regions.

Monitor jobs in both regions for failures.

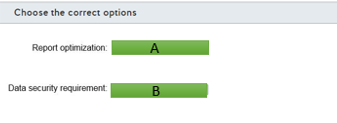
Monitor the jobs in the primary region for failure.

Deploy identical jobs to both regions in a paired region.

# Question138

Your company uses IoT devices to collect data about delivery vehicles. Data is identified by vehicle number and time. For security reasons, data should expire and automatically be removed from storage after one week. Management overhead should be kept to a minimum.  
  
Your data solution must support on-demand real-time reporting. Reports must execute as quickly as possible.  
  
You need to recommend the Cosmos DB features that meet these requirements.  
  
What should you recommend? To answer, select the appropriate options from the drop-down menus.

Choose the correct options



A)

1. Cosmos DB change feed
2. Cosmos DB indexes
3. Cosmos DB transactions
4. Cosmos DB triggers
5. Cosmos DB TTL

B)

1. Cosmos DB change feed
2. Cosmos DB indexes
3. Cosmos DB transactions
4. Cosmos DB triggers
5. Cosmos DB TTL

# Question139

You are developing a real-time processing solution to detect and report telecommunications fraud activity. You are using Azure Stream Analytics.   
  
You need to create an appropriate data stream input to support the solution.  
  
What should you use?

Choose the correct answer

Kafka

Azure SQL Database

Azure Event Hubs

Azure Cosmos DB

# Question141

You are designing a real-time processing solution using Azure Streaming Analytics. Data is loaded into an Azure Blob Storage container every minute for immediate processing automated through the use of Azure Functions. Your company has IoT sensors throughout its manufacturing facility to collect information for quality analysis. Data should be placed in long-term storage after processing for later review.  
  
You use Azure Blob Storage for data ingested and create a new blob for each upload. The blob is deleted after the data is processed. You create the functions using the App Service hosting plan and a blob trigger. Processed data is written to an Azure Cosmos DB database and sent to Power BI to support a real-time dashboard.  
  
For each of the following statements, select Yes if the statement is true. Otherwise, select No.

|  |  |  |
| --- | --- | --- |
| **Statement** | **Yes** | **No** |
| The streaming data input is appropriate for the application and allows for automation. |  |  |
| Azure Functions will be able to scale automatically to meet processing needs, and functions are removed when not needed. |  |  |
| You can both store the processed data in Cosmos DB and send the data to Power BI. |  |  |

# Question142

You are designing a real-time processing solution by using Azure Databricks. The source data is in a local CSV file. You want to use SQL to manually query the CSV file and display a pie chart by running a cell.  
  
You need to create the necessary resources.  
  
Which resources should you create in sequence? To answer, move the appropriate resources from the list of possible resources to the answer area and arrange them in any order.

Create a list in any order

Possible resources

Resources

* Job
* Storage account
* Event Hub
* Databricks workspace
* Databricks cluster
* Databricks notebook