DP-700 Theme 1: Azure Data Factory (Ingestion & Integration)

Subjective / Case Study Questions

Q1. A retail company wants to move daily CSV sales data from Blob Storage to Synapse automatically. Explain the steps using ADF.

1. Create Linked Services for Blob and Synapse. 2. Define datasets. 3. Use Copy Activity or Mapping Data Flow. 4. Configure triggers (schedule/event). 5. Monitor pipeline runs.

Q2. IoT devices generate JSON files daily. Describe how to process them into a structured database using ADF.

1. Connect to source (Blob Storage). 2. Flatten JSON via Mapping Data Flow. 3. Transform and load to SQL or Data Lake. 4. Automate via event-based triggers. 5. Monitor pipeline execution.

Q3. Your organization wants to integrate multiple on-premises databases with Azure for analytics. How would you design the ADF integration runtime?

1. Use Self-Hosted Integration Runtime for on-prem. 2. Configure Linked Services. 3. Build pipelines for ingestion. 4. Schedule or trigger runs. 5. Ensure secure data transfer.

MCQs

Q1. Which activity in ADF is used for copying data from source to destination?

A. Data Flow

B. Copy Activity

C. Lookup Activity

D. Get Metadata Activity

Answer: B

Explanation: Copy Activity is specifically designed to move data between source and sink datasets.

Q2. Which runtime is required to connect ADF to on-premises databases?

A. Azure-Hosted IR

B. Self-Hosted Integration Runtime

C. SQL Server Runtime

D. Azure Function IR

Answer: B

Explanation: Self-Hosted IR allows secure connectivity from on-premises to Azure data services.

Q3. Which trigger in ADF is used for file arrival events?

A. Schedule Trigger

B. Tumbling Window Trigger

C. Event-Based Trigger

D. Manual Trigger

Answer: C

Explanation: Event-Based Trigger starts the pipeline when a new file arrives in Blob Storage or Data Lake.