Azure Fabric Data Engineer

==========Sql==========

1.SQL Server Download

2.OLTP vs OLAP, DDL, DML, DCL, and the Difference Between DELETE and TRUNCATE

3.Operators (AND, OR, NULL, LIKE), WHERE and HAVING

4.Stored Procedures, Functions, Table Dependencies, and Date Folder

5.Constraints, UNION, UNION ALL, String Functions, and Date Functions

6.Aggregation and GROUP BY, PARTITION, Case and WHEN Statements and IIF Statements

7.Joins

8.Joins

9.Date Functions, Window Functions, CASE and IIF Statements

10.CTE, Removing Duplicates, Highest Salary by Department, CONCAT, ISNULL, and COALESCE

11.Correlated Subquery, Views, Temp Tables, Variables, Cumulative Functions, and Finding a Particular Column

12.Order of SQL Execution, LEAD, LAG, PIVOT, and Finding Relationships Between Primary Key and Foreign Key

13.SQL Optimization and Normalization

==========ADF==========

0.Azure Demo

1.Introduction to Azure and Big Data

2.Big Data, Loading Data from Blob to SQL, Redundancy, and Blob Storage

3.Difference Between Blob Storage and ADLS Gen2, Loading Excel to Blob, Blob to Gen2, Adding Columns, Merge, Delimiters Types, and Blob Types

4.Loading Data from Blob to Gen2 Using Dataset Parameters, Security Mechanisms, and Changing Data Types Using Get Metadata and ForEach Activities

5.Loading Data from Gen2 to SQL as Single and Multiple Tables Using Authentication Types (SAS) and Triggers

6.Key Vaults, Degree of Parallelism, Loading Data Files from the Last 2–3 Days to Gen2, Breakpoints, and Deactivation

7.Lifecycle Management, Storage Explorer Connection, Triggers, and Delete Activity (Normal and Event Triggers)

8.Copying and Filtering Multiple CSV and TXT Files into Single and Multiple Tables at the Sink Side Using System-Assigned Managed Identity Authentication

9.Exporting and Importing Pipelines, Running Pipelines from One Data Factory to Another Data Factory

10.Loading All Tables and Specific Tables from On-Prem SQL to Gen2 Using Linked Services, Self-Hosted Integration Runtime, and ECG

11.Nested Looping (Execute Pipeline) and Merging Multiple Folders into a Single Folder

12.Concept of Synapse Analytics

13.Synapse Analytics (Fact and Dimension Tables), Star and Snowflake Schemas, and Notebooks

14.Synapse Analytics Transformations (Narrow and Wide Tables), Using Notebooks to Read and Write Data

15.Data Flow – Part 1

16.Data Flow – Part 2

17.Data Flow (SCD Type 0, SCD Type 1, and SCD Type 2)

18.Debugging and Monitoring Data Pipelines, Audit Logs, Pipeline Troubleshooting, Performance Optimization, and Cost Optimization

19.Agile Methodology, Git, CI/CD, and Jira

20.Incremental Load for a Single Table

21.Incremental Load for Multiple Tables

==========ADB==========

1.Difference between Azure Data Factory (ADF), Azure Databricks (ADB), Azure Synapse, Python, clusters, and cluster types

2.Introduction to Python: lists, tuples, indexing, and slicing

3.Sets and dictionaries, indentation, and conditional statements (if conditions)

4.Conditional statements (if), for loops, and functions

5.Introduction to Big Data and Hadoop: HDFS, MapReduce, Spark, and overall architecture

6.Apache Spark architecture, Databricks introduction, DAG, RDD, and DataFrames

7.DataFrame operations, withColumn, and DBFS (Databricks File System / fs utilities)

8.Reading CSV, Parquet, and JSON files with and without headers, and read modes

9.Advanced Databricks transformations

10.Advanced Databricks transformations and joins

11.Global and temporary views, managed vs external tables, and Spark SQL

12.Mount points, SparkSession, DAG, lazy evaluation, and narrow vs wide transformations

13.JDBC connections and streaming

14.Databricks utilities and widgets

15.Connecting Azure Databricks from Azure Data Factory, running notebooks, and optimization

16.Performance optimization in Azure Databricks

17.Performance and memory optimization in Azure Databricks

18.Delta Lake and Unity Catalog

19.Delta Live Tables

20.Azure DevOps integration with Azure Databricks

21.Databricks Asset Bundles