

## **AZURE DATA FUNDAMENTAL - ( DP – 900)**

### **1. Understand core data concepts**

- 1.1 Explain the concepts of data types
- 1.2 Define data ingestion and data processing
- 1.3 Describe data storage and data analysis
- 1.4 Explain data visualization and data reporting

### **2. Understand how data is stored and processed in Azure**

- 2.1 Describe Azure data storage options (e.g., Azure SQL Database, Azure Cosmos DB, Azure Blob Storage)
- 2.2 Explain Azure data processing solutions (e.g., Azure Data Factory, Azure Databricks, Azure Stream Analytics)
- 2.3 Compare Azure data services for different data scenarios

### **3. Explore relational data offerings in Azure**

- 3.1 Introduction to Azure SQL Database
- 3.2 Provisioning and managing Azure SQL Databases
- 3.3 Scaling and performance options in Azure SQL Database

### **4. Query relational data in Azure**

- 4.1 Writing basic SQL queries
- 4.2 Querying data using T-SQL
- 4.3 Query optimization in Azure SQL Database

### **4. Explore Azure Synapse Analytics**

- 4.1 Introduction to Azure Synapse Analytics
- 4.2 Data warehousing concepts

### 4.3 Data loading and querying in Azure Synapse Analytics

## 5. Explore non-relational data offerings in Azure

### 5.1 Introduction to Azure Cosmos DB

### 5.2 Key-value, document, column-family, and graph data models

### 5.3 Provisioning and managing Azure Cosmos DB databases

## 6. Work with data in Azure Cosmos DB

### 6.1 Creating and querying documents in Azure Cosmos DB

### 6.2 Partitioning and scaling in Azure Cosmos DB

### 6.3 Consistency levels and global distribution

## 7. Explore analytics and AI solutions in Azure

### 7.1 Introduction to Azure Data Lake Storage

### 7.2 Azure HDInsight for big data processing

### 7.3 Azure Machine Learning for AI and ML workloads

## 8. Process and analyze data using Azure

### 8.1 Data transformation using Azure Data Factory

### 8.2 Data analytics with Azure Databricks

### 8.3 Real-time analytics with Azure Stream Analytics

## 9. Explore data integration and migration services

### 9.1 Azure Data Factory for data integration

### 9.2 Azure Database Migration Service for data migration

## 10. Data security and compliance in Azure

### 10.1 Data encryption and access control

### 10.2 Compliance standards and certifications



## **11. Monitor and troubleshoot data solutions in Azure**

11.1 Monitoring data services using Azure Monitor

11.2 Troubleshooting common data issues

## **12. Introduction to Azure data storage**

12.1 Azure Blob Storage

12.2 Azure Table Storage

12.3 Azure Queue Storage

## **13. Selecting the right Azure storage service**

13.1 Choosing the appropriate storage service for different data scenarios

## **14. Data backup and disaster recovery in Azure**

14.1 Azure Backup and Azure Site Recovery

## **15. Methods for data ingestion**

15.1 Batch data loading

15.2 Real-time data ingestion

## **16. Tools for data loading**

16.1 Azure Data Factory

16.2 Azure Data Factory Data Flow

16.3 Azure Data Factory Mapping Data Flow