Microsoft Azure Data Fundamentals: DP-900

EXAM DESIGN

Audience Profile

- Candidates for this exam should have foundational knowledge of core data concepts and how they are implemented using Microsoft Azure data services.

- This exam is intended for candidates beginning to work with data in the cloud.

- Candidates should be familiar with the concepts of relational and non-relational data, and different types of data workloads such as transactional or analytical.

- Azure Data Fundamentals can be used to prepare for other Azure role-based certifications like Azure Database Administrator Associate or Azure Data Engineer Associate, but it is not a prerequisite for any of them.

Objective Domains

SKILLS MEASURED

- NOTE: The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.
- NOTE: Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Describe core data concepts (25—30%)

Describe ways to represent data
- Describe features of structured data
- Describe features of semi-structured
- Describe features of unstructured data

Identify options for data storage
- Describe common formats for data files
- Describe types of databases

Describe common data workloads
- Describe features of transactional workloads
- Describe features of analytical workloads

Identify roles and responsibilities for data workloads
- Describe responsibilities for database administrators
- Describe responsibilities for data engineers

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Identify considerations for relational data on Azure (20—25%)

Describe relational concepts

- Identify features of relational data
- Describe normalization and why it is used
- Identify common structured query language (SQL) statements
- Identify common database objects

Describe relational Azure data services

- Describe the Azure SQL family of products including Azure SQL Database, Azure SQL
- Managed Instance, and SQL Server on Azure Virtual Machines
- Identify Azure database services for open-source database systems

Describe considerations for working with non-relational data on Azure (15—20%)

Describe capabilities of Azure storage

- Describe Azure Blob storage
- Describe Azure File storage
- Describe Azure Table storage

Describe capabilities and features of Azure Cosmos DB

- Identify use cases for Azure Cosmos DB
- Describe Azure Cosmos DB APIs

Describe an analytics workload on Azure (25–30%)

Describe common elements of large-scale analytics

- Describe considerations for data ingestion and processing
- Describe options for analytical data stores
- Describe Azure services for data warehousing, including Azure Synapse Analytics, Azure Databricks, Azure HDInsight, and Azure Data Factory

Describe consideration for real-time data analytics

- Describe the difference between batch and streaming data
- Describe technologies for real-time analytics including Azure Stream Analytics, Azure Synapse Data Explorer, and Spark Structured Streaming

Describe data visualization in Microsoft Power BI

- Identify capabilities of Power BI
- Describe features of data models in Power BI
- Identify appropriate visualizations for data