



Microsoft Azure Data Fundamentals

Study Guide

Exam DP-900

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Chapter 1 Describe core data concepts

Skill 1.1: Describe types of core data workloads

Describe streaming data

Describe batch data

Describe the difference between batch and streaming data

Describe the characteristics of relational data

Skill 1.2: Describe data analytics core concepts

Describe analytics techniques

Describe the concepts of ETL, ELT, and data processing

Describe data visualization and basic chart types

Chapter summary

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Chapter 2 Describe how to work with relational data on Azure

Skill 2.1: Describe relational data workloads

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Identify the right data offering for a relational workload

Describe relational data structures

Skill 2.2: Describe relational Azure data services

Describe and compare PaaS, IaaS, and SaaS delivery models

Describe Azure SQL Database

Describe Azure Synapse Analytics

Describe SQL Server on Azure Virtual Machine

Describe Azure Database for PostgreSQL, Azure Database for MariaDB, and Azure Database for MySQL

Describe Azure SQL Managed Instance

Skill 2.3: Identify basic management tasks for relational data

Describe provisioning and deploying relational data services

Describe method for deployment including ARM templates and Azure Portal

Identify data security components (e.g., firewall, authentication)

Identify basic connectivity issues (e.g., accessing from on-premises, access with Azure VNets, access from internet, authentication, firewalls)

Identify query tools (e.g., Azure Data Studio, SQL Server Management Studio, sqlcmd utility, etc.)

Skill 2.4: Describe query techniques for data using SQL language

Compare DDL versus DML

Query relational data in PostgreSQL, MySQL, and Azure SQL Database

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Chapter 3 Describe how to work with non-relational data on Azure

Skill 3.1: Describe non-relational data workloads

- Describe the characteristics of non-relational data
- Describe the types of non-relational and NoSQL data
- Choose the correct data store
- Determine when to use non-relational data

Skill 3.2: Describe non-relational data offerings on Azure

- Identify Azure data services for non-relational workloads
- Describe Azure Cosmos DB API
- Describe Azure Storage
- Describe Azure Table storage
- Describe Azure Blob storage
- Describe Azure File storage

Skill 3.3: Identify basic management tasks for non-relational data

- Describe provisioning and deployment of non-relational data services
- Describe method for deployment including the Azure portal, Azure Resource Manager templates, Azure PowerShell, and the Azure command-line interface (CLI)
- Identify data security components (e.g., firewall, authentication, encryption)
- Identify basic connectivity issues (e.g., accessing from on-premises, access with Azure VNets, access from internet, authentication, firewalls)
- Identify management tools for non-relational data

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Chapter 4 Describe an analytics workload on Azure

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Skill 4.1: Describe analytics workloads

Skill 4.2: Describe the components of a modern data warehouse

Describe modern data warehousing architecture and workload

Describe Azure data services for modern data warehousing such as Azure Data Lake, Azure Synapse Analytics, Azure Databricks, and Azure HDInsight

Skill 4.3: Describe data ingestion and processing on Azure

Describe the components of Azure Data Factory (e.g., pipeline, activities, etc.)

Describe data processing options (e.g., Azure HDInsight, Azure Databricks, Azure Synapse Analytics, Azure Data Factory)

Describe common practices for data loading

Skill 4.4: Describe data visualization in Microsoft Power BI

Describe the workflow in Power BI Describe the role of interactive reports Describe the role of dashboards

Describe the role of paginated reporting Chapter summary

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