

# Implement Non-relational Data Stores

## Overview of Non-Relational Data Services

- [Core Cloud Services - Azure data storage options](#)
- [Explore non-relational data offerings in Azure](#)
- [Explore provisioning and deploying non-relational data services in Azure](#)

## Azure Storage

- [Manage non-relational data stores in Azure](#)
- [Create an Azure Storage account](#)
- [Secure your Azure Storage account](#)

## Azure Data Lake

- [Introduction to Azure Data Lake storage](#)
- [Upload data to Azure Data Lake Storage](#)

## Azure Cosmos DB

- [Create an Azure Cosmos DB database built to scale](#)
- [Choose the appropriate API for Azure Cosmos DB](#)
- [Distribute your data globally with Azure Cosmos DB](#)
- [Implement data partitions](#)
- [Implement a consistency model in CosmosDB](#)
- [Provide access to data to meet security requirements](#)

### **Further Study Material**

**Note:** Everything required to clear exam has already been covered in Videos lesson, quizzes, notes and practice question banks. This is just an extra material from Microsoft learn in case you have time and you are interested to learn further.

## **Implement Relational Data Stores**

### **Azure SQL Database**

- [Explore IaaS and PaaS platform tools for high availability and disaster recovery](#)
- [Provision an Azure SQL database to store application data](#)
- [Deploy Azure SQL Database](#)
- [Scale multiple Azure SQL Databases with SQL elastic pools](#)
- [Deploy SQL Server in a virtual machine](#)
- [Backup and restore databases](#)
- [Describe high availability and disaster recovery strategies](#)
- [Schedule tasks using SQL Server Agent](#)
- [Secure your Azure SQL Database](#)
- [Implement compliance controls for sensitive data](#)

### **Azure SQL Data Warehouse (Synapse)**

- [Examine components of a modern data warehouse](#)
- [Design a data warehouse with Azure Synapse Analytics](#)
- [Import data into Azure Synapse Analytics by using PolyBase](#)
- [Query data in Azure Synapse Analytics](#)
- [Data warehouse security](#)

## **Manage Data Security**

- [Dynamic data masking - Azure SQL Database](#)
- [Dynamic Data Masking - SQL Server](#)
- [Protect data in-transit and at rest](#)
- [Row-level security](#)

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## **Develop Batch Processing Solutions**

### **Azure Data Factory**

- [Implement Copy Activity within Azure Data Factory](#)
- [Implement the integration runtime for Data Factory](#)
- [Create pipelines and activities](#)
- [Implement Mapping Data Flows in Azure Data Factory](#)
- [Data ingestion with Azure data factory](#)

### **Azure Databricks**

- [Introduction to Azure Databricks](#)
- [Describe Azure Databricks](#)
- [Read and write data in Azure Databricks](#)
- [Access SQL Data Warehouse instances with Azure Databricks](#)
- [Perform basic data transformations in Azure Databricks](#)
- [Perform advanced data transformation in Azure Databricks](#)
- [Work with DataFrames in Azure Databricks](#)
- [Describe lazy evaluation and other performance features in Azure Databricks](#)
- [Describe platform architecture, security, and data protection in Azure Databricks](#)
- [Integrate Azure Databricks with other Azure services](#)
- [Build and query a Delta Lake](#)
- [Describe Azure Databricks Delta Lake architecture](#)

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## Develop Streaming Solutions

- [Work with data streams by using Azure Stream Analytics](#)
- [Configure Job Input](#)
- [Configure Job Output](#)
- [Select the appropriate windowing functions](#)
- [Transform data by using Azure Stream Analytics](#)
- [Work with streaming data in Azure Databricks](#)

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## Monitor data storage

- [Configure Azure Monitor alerts](#)
- [Implement auditing by using Azure Log Analytics](#)
- [Analyze your Azure infrastructure by using Azure Monitor logs](#)
- [Implement BLOB storage monitoring](#)
- [Gather metrics from your Azure Blob Storage containers](#)
- [Implement Data Lake Store monitoring - Diagnostic Logs](#)
- [Implement SQL Database monitoring](#)
- [Implement Azure Synapse Analytics monitoring](#)
- [Implement Cosmos DB monitoring](#)

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## **Monitor Data Processing**

- **Monitor Data Factory pipelines**
- **Monitor Azure Databricks - Diagnostic Logging**
- **Monitor stream analytics**

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## **Optimize Azure Data Solutions**

- [Troubleshoot data partitioning bottlenecks](#)
- [Optimize the performance of Azure Cosmos DB by using partitioning and indexing strategies](#)
- [Optimize SQL Database](#)
- [Configure SQL Server resources for optimal performance](#)
- [Configure databases for performance](#)
- [Optimize Azure Synapse Analytics](#)
- [Optimize Data Lake Storage](#)
- [Describe Azure Databricks best practices](#)
- [Optimize Stream Analytics](#)
- [Manage the data life cycle](#)