

Migrate SQL Server workloads to Azure SQL

Duration: 2 Days

Prerequisites:

- Experience with SQL Server databases.
- Knowledge of SQL Server editions and versions.
- Basic knowledge of security concepts like identities and permissions.
- Experience using the Azure portal to create resources and set permissions.

Course Description:

This learning path prepares you for the task of migrating SQL Server workloads to Azure SQL.

You'll learn how to assess SQL Server components and compatibility for migration using the Azure SQL Migration Extension and Database Migration Assistant. You'll also learn how to provision and configure Azure SQL resources. You'll gain hands-on experience in choosing the best migration option to meet business requirements for downtime, handling migration state, and monitoring database migration.

Additionally, you'll also learn to perform post-migration tasks like disaster recovery and monitoring. These skills are essential for ensuring a smooth, efficient transition to Azure SQL, and maintaining its operation post-migration.

Course Outline:

Design a SQL Server migration strategy

- Introduction
- Examine data platform modernization
- Plan a data migration
- Explore the available data migration technologies
- Exercise: Compare on-premises Azure costs

Assess SQL Server databases for migration to Azure SQL

- Introduction
- Review database for compatibility
- Explore assessment options for database migration
- Assess a database with Azure Migration extension
- Assess a database with Azure Migrate
- Assess a database with Data Migration Assistant
- Exercise: Identify compatibility issues

Deploy IaaS solutions with Azure SQL

- Introduction
- Explain IaaS options to deploy SQL Server in Azure
- Understand hybrid scenarios
- Explore performance and security
- Explain high availability and disaster recovery options
- Exercise: Provision a SQL Server on an Azure Virtual Machine

Deploy PaaS solutions with Azure SQL

- Introduction
- Explain PaaS options for deploying SQL Server in Azure
- Explore single SQL database
- Deploy SQL database elastic pool
- Understand SQL database hyperscale

- Examine SQL managed instance
- Describe SQL Edge
- Exercise: Deploy an Azure SQL Database

Migrate SQL Server workloads to Azure Virtual Machine

- Introduction
- Review migrations strategies and tools
- Explore Azure SQL Migration extension for Azure Data Studio
- Understand Data Migration Assistant
- Understand distributed availability group for migration
- Migrate databases using native backup and restore
- Compare additional migration methods
- Exercise: Migrate SQL Server databases to SQL Server on Azure Virtual Machine

Migrate SQL Server workloads to Azure SQL Database

- Introduction
- Choose the right Azure SQL Database feature
- Use Azure SQL migration extension to migrate to Azure SQL Database
- Explore Data Migration Assistant to migrate to Azure SQL Database
- Migrate to Azure SQL Database using BACPAC
- Use an online method to migrate to Azure SQL Database
- Move data to Azure SQL Database
- Exercise Migrate a SQL Server database to Azure SQL Database

Migrate SQL Server workloads to Azure SQL Managed Instance

- Introduction
- Evaluate migration scenarios
- Use Log Replay Service (LRS) to migrate
- Migrate using Managed Instance link
- Move data to SQL Managed Instance
- Exercise Migrate a SQL Server database to Azure SQL Managed Instance

Perform post-migration tasks on Azure SQL

- Introduction
- Migrate SQL logins and groups
- Implement security to protect Azure SQL
- Implement compliance controls for sensitive data
- Monitor database performance
- Configure high availability and disaster recovery
- Automate database tasks for scalability
- Exercise: Configure geo-replication for Azure SQL Database