



## APPLIED SKILLS

### Migrate SQL Server workloads to Azure SQL Database



Days	SKILL LEVEL	DELIVERY METHOD	PRODUCT	TECHNOLOGY
1	Intermediate	VILT/ILT	Database Administrator	Azure Data

#### Course Overview

This learning path prepares you for the task of migrating SQL Server workloads to Azure SQL Database. You'll learn how to assess SQL Server components and compatibility for migration using the Azure SQL Migration Extension and Database Migration Assistant. This training guides you through the process of provisioning and configuring Azure SQL Database resources. You 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 for Azure SQL Database. These skills are essential for ensuring a smooth, efficient transition to Azure SQL Database, and maintaining its operation post-migration.

#### Tasks performed.

- Perform post-migration configuration
- Configure disaster recovery
- Assess and prepare databases for migration
- Migrate a database to an Azure SQL database
- Provision and configure an Azure SQL database.

#### Prerequisites

Before attending this course, delegates must know:

- 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.

## Prepare for the assessment.

### Module 1: Design a SQL Server migration strategy

In this module, you'll learn the phases of a migration and the steps involved to ensure your migration project is executed smoothly. You'll also learn the purpose of data platform modernization and see the benefits it can bring to your organization.

#### Learning objectives

By the end of this module, you'll be able to:

- Explain what data platform modernization is
- Review the stages of a data migration
- Recommend when to use an Azure data platform technology
- Explore the cost savings of moving your SQL workloads to Azure

### Module 2: Assess SQL Server databases for migration to Azure SQL

Assessment tools such as Azure SQL Migration extension for Azure Data Studio, Azure Migrate, and Data Migration Assistant facilitate the migration of SQL Server databases to Azure.

#### Learning objectives

In this module, you'll:

- Understand common compatibility issues and blockers that may prevent a migration to Azure SQL.
  - Discover the various tools and options available for assessing SQL Server databases for migration purposes.
  - Use the Azure migration extension for Azure Data Studio to assess SQL Server databases.
  - Use the Azure Migrate to assess SQL Server databases.
  - Use Data Migration Assistant (DMA) to assess SQL Server databases.
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### **Module 3: Deploy PaaS solutions with Azure SQL**

Provision and deploy Azure SQL Database and Azure SQL managed instance. Select the appropriate options when performing a migration to the SQL PaaS platform.

#### **Learning objectives**

After completing this module, you will be able to:

- Gain an understanding SQL Server in a Platform as a Service (PaaS) offering
- Understand PaaS provisioning and deployment options
- Understand elastic pools
- Examine Azure SQL Managed Instances
- Explore Azure SQL Edge
- Configure a template for PaaS deployment

### **Module 4: Configure database authentication and authorization**

Contrast authentication using Microsoft Entra ID, Windows Active Directory, and SQL Server authentication. Implement various security principals and configure permissions.

#### **Learning objectives**

After completing this module, you will be able to:

- Learn about authentication options for Azure SQL Database
- Create various security principals
- Configure permissions within a SQL database
- Identify authentication and authorization failures

### **Module 5: Migrate SQL Server workloads to Azure SQL Database**

You will explore different migration tools and migrate SQL Server databases to Azure SQL Database.

#### **Learning objectives**

In this module, you'll:

- Explore the advantages, capabilities, and migration possibilities offered by Azure SQL Database.
  - Migrate databases using Azure SQL Migration extension for Azure Data Studio and tracking database migration activities.
  - Use the Data Migration Assistant (DMA) tool to facilitate SQL Server migrations to Azure SQL Database.
  - Use transactional replication as an online method to migrate to Azure SQL Database.
  - Explore several other methods for migrating SQL Server databases to Azure SQL Database.
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## Module 6: Perform post-migration tasks on Azure SQL

You'll explore different features and tools to help you maintain Azure SQL environments.

### Learning objectives

At the end of this module, you'll be able to:

- Implement compliance controls for sensitive data.
- Monitor database performance in Azure SQL.
- Configure high availability and disaster recovery in Azure SQL.
- Automate database tasks for scalability.

## Take the assessment.

This assessment will use an interactive lab to evaluate your performance. It will take a few minutes to load the lab, and you may do other activities while it loads. After you launch the lab, you will need to wait 72 hours to launch it again. Your mouse movements and text entered during the lab will be recorded for quality purposes. [Learn more](#)

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