

20765 - Provisioning SQL Databases

Duration: 3 days

Overview:

This three-day instructor-led course provides students with the knowledge and skills to provision a Microsoft SQL Server 2016 database. The course covers SQL Server 2016 provision both on-premise and in Azure, and covers installing from new and migrating from an existing install.

Target Audience:

The primary audience for this course is individuals who administer and maintain SQL Server databases. These individuals perform database administration and maintenance as their primary area of responsibility, or work in environments where databases play a key role in their primary job. The secondary audiences for this course are individuals who develop applications that deliver content from SQL Server databases.

Pre-requisites:

Before attending this course, students must have:

- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of Transact-SQL.
- Working knowledge of relational databases.
- Some experience with database design

At Course Completion:

After completing this course, students will be able to:

- Provision a Database Server
- Upgrade SQL Server
- Configure SQL Server
- Manage Databases and Files (shared)

Module 1: SQL Server 2016 Components

Lessons

- Introduction to the SQL Server Platform
- Overview of SQL Server Architecture
- SQL Server Services and Configuration Options

Lab : SQL Server Versions (Discussion session)

Module 2: Installing SQL Server 2016

Lessons

- Considerations for installing SQL Server
- TempDB Files
- Installing SQL Server 2016
- Automating Installation

Lab : Installing SQL Server

Module 3: Upgrading SQL Server to SQL Server 2016

Lessons

- Upgrade Requirements
- Upgrade SQL Server Services
- Migrating SQL Server Data and Applications

Lab : Upgrading SQL Server

Module 4: Deploying SQL Server on Microsoft Azure

Lessons

- SQL Server Virtual Machines in Azure
- Deploying an Azure SQL Database
- Migrating an On-Premise Database to an Azure SQL Database

Lab : Migrating SQL Server with Azure

Module 5: Working with Databases

Lessons

- Overview of SQL Server Databases
- Creating Databases
- Database Files and Filegroups
- Moving Database Files
- Buffer Pool Extension

Lab : Managing Database Storage

Module 6: Database Storage Options

Lessons

- SQL Server storage Performance
- SMB Fileshare
- SQL Server Storage in Azure
- Stretch Databases

Lab : Implementing Stretch Database

Module 7: Performing Database Maintenance

Lessons

- Ensuring Database Integrity
- Maintaining Indexes
- Automating Routine Database Maintenance

Lab : Performing Ongoing Database Maintenance