

20765: Provisioning SQL Databases (SQL Server 2016)

Course Details

Course Outline

1. SQL Server Components

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

2. Installing SQL Server

- Considerations for SQL Installing Server
- TempDB Files
- Installing SQL Server
- Automating Installation
- **Lab : Installing SQL Server**
- Preparing to install SQL Server
- Install an instance of SQL Server
- Perform post installation checks
- Automating Installation

3. Upgrading SQL Server to SQL Server 2017

- Upgrade Requirements
- Upgrade SQL Server Services
- Side by Side Upgrade: Migrating SQL Server Data and Applications
- **Lab : Upgrading SQL Server**
- Create the Application Logins
- Restore the backups of the TSQL Database
- Orphaned Users and Database Compatibility Level

4. Working with Databases

- Introduction to Data Storage with SQL Server
- Managing Storage for System Databases
- Managing Storage for User Databases
- Moving and Copying Database Files
- Buffer Pool Extension
- **Lab : Managing Database Storage**

- Configuring tempdb Storage
- Creating Databases
- Attaching a Database
- Enable Buffer Pool Extension

5. Performing Database Maintenance

- Ensuring Database Integrity
- Maintaining Indexes
- Automating Routine Database Maintenance
- **Lab : Performing Database Maintenance**
- Use DBCC CHECKDB to Verify Database Integrity
- Rebuild Indexes
- Create a Database Maintenance Plan

6. Database Storage Options

- SQL Server storage Performance
- SMB Fileshare
- SQL Server Storage in Microsoft Azure
- Stretch Databases
- **Lab : Implementing Stretch Database**
- Run Stretch Database Advisor
- Implement Stretch Database

7. Planning to Deploy SQL Server on Microsoft Azure

- SQL Server Virtual Machines in Azure
- Azure Storage
- Azure SQL Authentication
- Deploying an Azure SQL Database
- **Lab : Plan and Deploy an Azure SQL Database**
- Plan an Azure SQL Database, Networking, performance tiers, security
- Provision an Azure SQL Database
- Connect to an Azure SQL Database

8. Migrating Databases to Azure SQL Database

- Database Migration Testing Tools
- Database Migration Compatibility Issues
- Migrating a SQL Server Database to Azure SQL Database
- **Lab : Migrating SQL Server Databases to Azure**

- Perform Migration Testing
- Migrate a SQL Server Database to Azure SQL Database
- Test a Migrated Database

9. Deploying SQL Server on a Microsoft Azure Virtual Machine

- Deploying SQL Server on an Azure VM
- The Deploy Database to a Microsoft Azure VM Wizard
- **Lab : Deploying SQL Server on an Azure Virtual Machine**
- Provision an Azure VM
- Use the Deploy Database to Azure VM Wizard

10. Managing databases in the Cloud

- Managing Azure SQL Database Security
- Configure Azure storage
- Azure Automation
- **Lab : Managing Databases in the Cloud**
- Add data masking
- Use Azure automation to stop Virtual Machines