

# MSQ4-2 - MOC 20762 - DEVELOPING SQL DATABASES

Categoria: **SQL Server 2017 e 2016**

## INFORMAZIONI SUL CORSO



Durata:  
5 Giorni



Categoria:  
SQL Server 2017 e  
2016



Qualifica Istruttore:  
Microsoft Certified  
Trainer



Dedicato a:  
Sviluppatore



Produttore:  
Microsoft

## OBIETTIVI

- Implementare un server di database
- Aggiornare SQL Server
- Configurare SQL Server
- Gestire database e file (condivisi)
- Implementare, migrare e gestire i database nel cloud

## PREREQUISITI

- Conoscenza di base del sistema operativo Microsoft Windows e delle sue funzionalità principali.
- Conoscenza operativa di Transact-SQL.
- Conoscenza operativa dei database relazionali.
- Esperienza operativa nella progettazione del database

## CONTENUTI

### Module 1: SQL Server 2016 Components

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

### Lab : Discussion: SQL Server versions

- When we do use a separate installation of SQL Server and when would use a separate instance?
- Which version of SQL Server is most suitable in your organization?
- After completing this module, you will be able to:
  - Describe SQL Server components and versions.
  - Describe SQL Server architecture and resource usage.
  - Describe SQL Server services and how you manage the configuration of those services.

### Module 2: Installing SQL Server 2016

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

### Lab : Installing SQL Server

- Assess the available resources

- Install an instance of SQL Server
- Perform post installation checks
- Automating Installation
- After completing this module, you will be able to:
  - Describe the considerations when installing SQL Server.
  - Describe TempDB files.
  - Install SQL Server 2016.
  - Automate a SQL Server installation.

### **Module 3: Upgrading SQL Server to SQL Server 2016**

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

#### **Lab : Upgrading SQL Server**

- Create the Application Logins
- Restore Database Backups
- Orphaned Users and Database Compatibility Level
- After completing this module, you will be able to:
  - Describe the upgrade requirements for SQL Server.
  - Upgrade SQL Server.
  - Migrate SQL Server data and applications.

### **Module 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
- Side-by-Side Upgrade: Migrating SQL Server Data and Applications
- Buffer Pool Extension

#### **Lab : Managing Database Storage**

- Configuring tempdb Storage
- Creating Databases
- Attaching a Database
- Enable Buffer Pool Extension
- After completing this module, you will be able to:
  - Describe Data Storage with SQL Server.
  - Manage Storage for System Databases.
  - Manage Storage for User Databases.
  - Move and Copy Database Files.
  - Describe the Side-by-Side Upgrade: Migrating SQL Server Data and Applications process.
  - Describe and use Buffer Pool Extensions.

### **Module 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

After completing this module, you will be able to:

Ensure Database Integrity.

Maintain Indexes.

Automate Routine Database Maintenance.

### **Module 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

After completing this module, you will be able to:

Describe SQL Server Storage Performance.

Describe SMB Fileshare.

Explain SQL Server Storage in Microsoft Azure.

Describe Stretch Database.

### **Module 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

After completing this module, you will be able to:

Describe SQL Server Virtual Machines in Azure.

Describe Azure Storage.

Explain Azure SQL Authentication, auditing and compliance.

Deploy an Azure SQL Database.

### **Module 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

### **Module 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

**Module 10: Managing databases in the Cloud**

Managing Azure SQL Database Security

Configure Azure storage

Azure Automation

**Lab : Managing Databases in the Cloud**

Configure Azure Security

Automate Azure Deployment

**INFO**

**Materiale didattico:** Materiale didattico in formato digitale

**Costo materiale didattico:** incluso nel prezzo del corso a Calendario

**Natura del corso:** Operativo (previsti lab su PC)