# MSQ4-2 - MOC 20762 - DEVELOPING SQL DATABASES

Categoria: **SQL Server 2017 e 2016**

## INFORMAZIONI SUL CORSO

| Durata: | Categoria: | Qualifica Istruttore: | Dedicato a: | Produttore: |
|---|---|---|---|---|
| 5 Giorni | SQL Server 2017 e 2016 | Microsoft Certified Trainer | Sviluppatore | 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)