



20462D - Version: 1

01 May 2021

# Administering Microsoft SQL Server 2014 Databases



# Administering Microsoft SQL Server 2014 Databases

20462D - Version: 1

---

 **5 days Course**

## Description:

This five-day instructor-led course provides students with the knowledge and skills to maintain a Microsoft SQL Server 2014 database. The course focuses on teaching individuals how to use SQL Server 2014 product features and tools related to maintaining a database.

## Intended 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.

## Prerequisites:

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.

## Objectives:

## Topics:

Introduction to SQL Server 2014 Database Administration

- Database Administration Overview
- Introduction to the SQL Server Platform
- Database Management Tools and Techniques
- Lab : Using SQL Server Administrative Tools

## Installing and Configuring SQL Server 2014

- Planning SQL Server Installation
- Installing SQL Server 2014
- Post-Installation Configuration
- Lab : Installing SQL Server 2014

## Working with Databases and Storage

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

## Planning and Implementing a Backup Strategy

- Understanding SQL Server Recovery Models
- Planning a Backup Strategy
- Backing up Databases and Transaction Logs
- Using Backup Options
- Ensuring Backup Reliability
- Lab : Backing Up SQL Server Databases

## Restoring SQL Server 2014 Databases

- Understanding the Restore Process
- Restoring Databases
- Advanced Restore Scenarios

- Working with Point-in-Time Recovery
- Lab : Restoring SQL Server Databases

## Importing and Exporting Data

- Introduction to Transferring Data
- Importing and Exporting Table Data
- Copying or Moving a Database
- Lab : Importing and Exporting Data

## Monitoring SQL Server 2014

- Introduction to Monitoring SQL Server
- Dynamic Management Views and Functions
- Performance Monitor
- Lab : Monitoring SQL Server 2014

## Tracing SQL Server Activity

- Tracing SQL Server Workload Activity
- Using Traces
- Lab : Tracing SQL Server Workload Activity

## Managing SQL Server Security

- Introduction to SQL Server Security
- Managing Server-Level Security
- Managing Database-Level Principals
- Managing Database Permissions
- Lab : Managing SQL Server Security

## Auditing Data Access and Encrypting Data

- Auditing Data Access in SQL Server
- Implementing SQL Server Audit



- Lab : Auditing Data Access and Encrypting Data

## Performing Ongoing Database Maintenance

- Ensuring Database Integrity
- Maintaining Indexes
- Automating Routine Database Maintenance
- Lab : Performing Ongoing Database Maintenance

## Automating SQL Server 2014 Management

- Automating SQL Server Management
- Implementing SQL Server Agent Jobs
- Managing SQL Server Agent Jobs
- Managing Job Step Security Contexts
- Managing Jobs on Multiple Servers
- Lab : Automating SQL Server Management

## Monitoring SQL Server 2014 by Using Alerts and Notifications

- Monitoring SQL Server Errors
- Configuring Database Mail
- Configuring Operators, Alerts, and Notifications
- Lab : Monitoring SQL Server by Using Alerts and Notifications