

5 Days

## 20462: Administering Microsoft SQL Server 2014 Databases

This five-day 20462D Administering Microsoft SQL Server 2014 Databases training course delivers the essential knowledge and skills to cater and manage Microsoft SQL Server 2014 databases. This course is intended for database professionals who wish to acquire primary learning of SQL Server 2012 or 2014.

This training will cover the fundamentals of installing, configuring, managing and troubleshooting the SQL Server databases.

The training will help you prepare for the exam 70-462: Administering Microsoft SQL Server Databases.

## Course Details

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### Course Outline

#### Module 1: Introduction to SQL Server 2014 Database Administration

This module describes the Microsoft SQL Server 2014 platform. It discusses the components, editions, and versions of SQL Server 2014, and the tasks that a database administrator commonly performs for a SQL Server instance.

##### Lessons

- Introduction to the SQL Server Platform
- Database Management Tools and Techniques
- Database Administration Overview

#### Module 2: Installing and Configuring SQL Server 2014

This module discusses the assessment of resource requirements for SQL Server 2014 and how to install it.

##### Lessons

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

#### Module 3: Working with Databases and Storage

This module explains how data is stored in databases, how to create databases, how to manage database files, and how to move them.

### **Lessons**

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

### **Module 4: Planning and Implementing a Backup Strategy**

In this module, you will learn how to create a backup strategy that is aligned with organizational needs, and learn to perform the backup operations required by that strategy.

### **Lessons**

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

### **Module 5: Restoring SQL Server 2014 Databases**

In this module, you will learn how to restore user and system databases and how to implement point-in-time recovery.

### **Lessons**

- Advanced Restore Scenarios
- Understanding the Restore Process
- Working with Point-in-Time Recovery
- Restoring Databases

### **Module 6: Importing and Exporting Data**

In this module, you will explore the tools and techniques of importing and exporting data to and from SQL Server.

### **Lessons**

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

### **Module 7: Monitoring SQL Server 2014**

This module describes the use of three of the most commonly used tools: Activity Monitor, Performance Monitor, dynamic management views and functions (DMVs and DMFs).

## **Lessons**

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

## **Module 8: Tracing SQL Server Activity**

This module describes how to use SQL Server Profiler and SQL Trace stored procedures to store information about SQL Server, and how to use that information to troubleshoot and optimize SQL Server workloads.

## **Lessons**

- Tracing SQL Server Workload Activity
- Using Traces

## **Module 9: Managing SQL Server Security**

In this module, you will explore the core concepts on which the SQL Server security architecture is based.

## **Lessons**

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

## **Module 10: Auditing Data Access and Encrypting Data**

This module discusses the available options for auditing in SQL Server, how to use and manage the SQL Server audit feature, and how to implement encryption.

## **Lessons**

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

## **Module 11: Performing Ongoing Database Maintenance**

This module describes common database maintenance tasks and demonstrates how to automate these tasks using maintenance plans.

## **Lessons**

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

## **Module 12: Automating SQL Server 2014 Management**

This module explains how to use SQL Server Agent to automate jobs, how to configure security contexts for jobs, and how to implement multi-server jobs.

## Lessons

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

## Module 13: Monitoring SQL Server 2014 by Using Alerts and Notifications

This module explains the configuration of database mail, alerts, and notifications.

## Lessons

- Monitoring SQL Server Errors
- Configuring Operators, Alerts, and Notifications
- Configuring Database Mail

## Who Should Attend

The primary audience for Administering Microsoft SQL Server 2014 Databases training course is professionals who cater to SQL Server databases.

The secondary audience for this course is professionals who create applications that deliver content from SQL Server databases.

## Pre Requisite

This course requires aspirants to meet the following prerequisites:

- Working knowledge of Transact-SQL and relational databases.
- Basic know-how of the Microsoft Windows operating system and its functionality.

## Exams

Microsoft Certified Professional (MCP) [70-462]

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