

MCSA SQL Server 2012 Certification



Course Outline

Querying Microsoft SQL Server 2012 (Exam 70-461)

Lesson 1: Getting Started with SQL Server 2012

Topic A: Overview of SQL Server 2012
Topic B: Work with SSMS

Lesson 2: Working with T-SQL

Topic A: Overview of T-SQL
Topic B: Work with T-SQL Statements
Topic C: Manage SQL Server Constraints

Lesson 3: Writing SELECT Queries

Topic A: Write SELECT Statements
Topic B: Assign Aliases Using Queries
Topic C: Write CASE Expressions

Lesson 4: Working with SQL Data Types

Topic A: Work with String and Numeric Data Types
Topic B: Work with Date and Time Data Types
Topic C: Work with Binary Data Types
Topic D: Work with the XML Data Type

Lesson 5: Sorting and Filtering Data

Topic A: Sort the Queried Data
Topic B: Filter the Queried Results
Topic C: Work with Predicates
Topic D: Perform Advanced Filtering

Lesson 6: Querying Data from Multiple Tables

Topic A: Combine Data Using Simple Joins

Topic B: Create Queries Using Join Algorithms

Lesson 7: Modifying Data

Topic A: Insert Data

Topic B: Update Data

Topic C: Delete Data

Topic D: Merge Data

Lesson 8: Working with SQL Server Built-in Functions

Topic A: Create Queries Using Built-in Functions

Topic B: Create Queries to Test Nullability

Topic C: Group and Aggregate Data

Lesson 9: Programming in T-SQL

Topic A: Work with Variables and Batches

Topic B: Control Program Flow

Topic C: Manage Triggers

Topic D: Work with Data Access Technologies

Lesson 10: Implementing Stored Procedures

Topic A: Manage Stored Procedures

Topic B: Work with Dynamic SQL

Lesson 11: Working with Subqueries and Table Expressions

Topic A: Work with Subqueries

Topic B: Work with Table Expressions

Lesson 12: Working with Set Operators, Conditional Operators, and Window Functions

Topic A: Work with Set Operators

Topic B: Work with Window Functions

Topic C: Configure User-Defined Functions (UDF)

Topic D: Work with Advanced Functions

Lesson 13: Working with PIVOT, UNPIVOT, and Grouping Sets

Topic A: Work with PIVOT and UNPIVOT

Topic B: Work with Grouping Sets

Lesson 14: Managing Error Handling and Transactions

Topic A: Implement Error Handling

Topic B: Manage Transactions

Lesson 15: Querying SQL Server System Metadata

Topic A: Work with System Databases

Topic B: Work with SSPs and SMOs

Topic C: Work with System Catalog Views

Lesson 16: Optimizing Query Performance

Topic A: Manage Query Plans

Topic B: Configure Indexes

Topic C: Manage Views

Topic D: Analyze Data from Query Plans

Lesson 17: Working with Windows Azure SQL Database

Topic A: Overview of WASD
Topic B: Work with WASD

Administering Microsoft SQL Server 2012 Databases (Exam 70-462)

Lesson 1: Identifying the SQL Server Platform and Tools

Topic A: Overview of SQL Server Features
Topic B: Create Filegroups and Partitions

Lesson 2: Deploying SQL Server

Topic A: Install SQL Server
Topic B: Migrate SQL Server From a Previous Version

Lesson 3: Configuring SQL Server

Topic A: Configure Server Properties
Topic B: Configure Memory and CPU
Topic C: Configure Database Mail

Lesson 4: Managing Databases in SQL Server 2012

Topic A: Create a Contained Database
Topic B: Configure Database Options

Lesson 5: Managing SQL Server Security

Topic A: Configure Server Security
Topic B: Create Server Roles
Topic C: Configure Database Security

Lesson 6: Implementing Advanced Security Settings

Topic A: Create Certificate-Based Logins
Topic B: Apply Auditing and Policy-Based Management Strategies

Lesson 7: Applying Encryption and Compression

Topic A: Apply Encryption on Databases
Topic B: Compress a Database Table

Lesson 8: Working with Indexes and Log Files

Topic A: Work with Full Text Indexes
Topic B: Configure Advanced Storage and Indexing Settings
Topic C: Configure Log Files

Lesson 9: Working with Backup and Restore

Topic A: Perform a Backup
Topic B: Restore a Database
Topic C: Import and Export Data
Topic D: Configure the SQL Server Agent

Lesson 10: Implementing High Availability

Topic A: Work with Clustering
Topic B: Work with Replication
Topic C: Work with Mirroring and AlwaysOn

Topic D: Work with Central Management Servers

Lesson 11: Optimizing Server Performance

Topic A: Manage Server Performance

Topic B: Optimize Indexes

Lesson 12: Troubleshooting Issues and Recovering Databases

Topic A: Troubleshoot Database Issues

Topic B: Perform a Database Recovery

Lesson 13: Performing Advanced Database Management Tasks

Topic A: Manage Database Infrastructure

Topic B: Configure SSIS

Implementing a Data Warehouse with Microsoft SQL Server 2012 (Exam 70-463)

Lesson 1: Introduction to Data Warehouses

Topic A: Overview of Data Warehouses

Topic B: Examine Data Warehousing Concepts

Topic C: Introduction to Data Analysis and Reporting Concepts

Lesson 2: Creating Dimensions and Changing Granularity of Dimensions

Topic A: Create Dimensions

Topic B: Change Granularity

Lesson 3: Creating Fact Tables and Columnstore Indexes

Topic A: Create Fact Tables

Topic B: Create Columnstore Indexes

Lesson 4: Implementing Data Warehouses in SQL Server 2012

Topic A: Overview of Data Warehouse Components

Topic B: Install Integration Services

Lesson 5: Working with Integration Services

Topic A: Create an SSIS Project

Topic B: Add Packages to an SSIS Project

Lesson 6: Managing Control Flow

Topic A: Deploy a Control Flow

Topic B: Execute Packages from Different Control Flow

Lesson 7: Working with Dynamic Variables

Topic A: Create Expressions with Variables

Topic B: Create Package Templates

Lesson 8: Implementing Data Flow

Topic A: Add Data Flow Components to a Data Flow Task

Topic B: Perform Transformation Tasks

Topic C: Track Changed Data

Lesson 9: Managing Data Flow

Topic A: Add Script Tasks and Script Components to an SSIS Package

Topic B: Profile OLTP Data
Topic C: Cleanse Data Using DQS

Lesson 10: Managing SSIS Package Execution

Topic A: Execute SSIS Packages on the Server
Topic B: Configure the Package Execution Strategy

Lesson 11: Debugging and Troubleshooting Packages

Topic A: Debug Package Execution Components
Topic B: Troubleshoot Package Failures

Lesson 12: Deploying Packages

Topic A: Deploy SSIS Packages
Topic B: Examine MSI Packages

Lesson 13: Securing Packages and Databases

Topic A: Secure Packages
Topic B: Secure Databases

Lesson 14: Working with MDS and Windows Azure

Topic A: Configure MDS
Topic B: Work with MDS Databases
Topic C: Work with Windows Azure