



REAL WORLD
TECHNOLOGY TRAINING & SOLUTIONS
"Training You Can Really Use"

55317: Querying Microsoft® SQL Server® 2022

Duration: 3 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Course Description

This course teaches participants how to use basic Transact-SQL statements and other languages to query modern editions of Microsoft SQL Server and Azure® SQL Server. This course is the foundation for all SQL Server-related disciplines; namely, Database Administration, Database Development and Business Intelligence. By using demonstrations and hands-on labs, participants will learn to perform these tasks using SQL Server, Azure Data Studio, and other database tools.

NOTE: *This course is the updated version of the retired legacy MOC course 20461.*

Target Audience

This course is intended for:

- Database Administrators
- Database Developers
- Business Intelligence professionals
- Report Writers
- Business Analysts
- Application developers and SQL users who want to familiarize themselves with SQL Server.

Prerequisites

To attend this course, candidates must have:

- Experience working on Windows® computers.



Microsoft Partner

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Course Objectives

Upon successful completion of this course, attendees will be able to:

- Query, sort, and filter data in database tables.
- Query external data sources.
- Query SQL Server and Azure SQL Server programmatically.
- Optimize query performance.
- Modify data using Transact-SQL.
- Work with XML and JSON formatted data.
- Use stored procedures and functions.
- Use SQL Server tools like SSMS and Azure Data Studio.
- Use Linked Servers.
- Use PolyBase.

Course Topics

Module 1: Querying data with SQL Server Management Studio (SSMS)

- Introduction to SSMS
- SSMS Querying Options
- Managing SSMS Queries

Module 2: Querying Data with Azure Data Studio

- Introduction to Azure Data Studio
- Azure Data Studio Querying Options
- Managing Azure Data Studio Queries

Module 3: Basic Transact-SQL Queries

- Using the SELECT Statement
- Working with Table Columns
- Working with Table Rows

Module 4: Advanced Transact-SQL Queries

- Using Unions and Joins
- Using Subqueries
- Using Common Table Expressions (CTEs)
- Grouping Data





Course Topics *Continued*

Module 5: Optimizing Query Performance

- Identifying Performance Issues
- Altering Tables and Queries
- Using Indexes

Module 6: Modifying Data with INSERT, UPDATE, and DELETE

- Using INSERT
- Using UPDATE
- Using DELETE

Module 7: Working with XML and JSON Data

- Storing XML and JSON Records
- Querying XML and JSON Records
- Converting Records to XML and JSON Formats

Module 8: Using Stored Procedures and Functions

- Using Built-In Procedures and Functions
- Creating Stored Procedures
- Creating Functions

Module 9: Query SQL Server Programmatically

- Using sqlcmd
- Using PowerShell
- Using Python

Module 10: Managing External Data Sources

- Using Linked Servers
- Using PolyBase

LABS INCLUDED

