

3 Days

20761B: Querying Data with Transact-SQL

The 3-days Microsoft 20761B Querying Data with Transact-SQL training course is part 1 of the series of two courses of MCSA 2016: SQL Database Development, that gives the fundamental understanding of the Transact-SQL Language that is deployed by the various SQL disciplines such as Database Administration, Database Development, Business Intelligence etc.

The T-SQL certification course is intended for business analysts and report writer who want to gain fundamentals of operating databases on SQL Server.

This course qualifies you for the exam 70-761: Querying with Transact-SQL Certification.

Course Details

Course Outline

Module 1: Introduction to Microsoft SQL Server 2016

This module describes SQL Server, the versions of SQL Server, including cloud versions, and how to connect to SQL Server using SQL Server Management Studio.

Lessons

- · Getting Started with SQL Server Management Studio
- SQL Server Editions and Versions
- The Basic Architecture of SQL Server

Module 2: Introduction to T-SQL Querying

This module describes the elements of T-SQL and their role in writing queries, describes the use of sets in SQL Server, describes the use of predicate logic in SQL Server, and describes the logical order of operations in SELECT statements.

Lessons

- Introduction of T-SQL
- Understanding Sets
- Understanding Predicate Logic
- Understanding the Logical Order of Operations in SELECT statements

Module 3: Writing SELECT Queries

This module explains the fundamentals of the SELECT statement, focusing on queries against a single table.

Lessons

- Writing Simple SELECT Statements
- Writing Simple CASE Expressions
- Using Column and Table Aliases
- Eliminating Duplicates with DISTINCT

Module 4: Querying Multiple Tables

This module discusses how to write queries which combine data from multiple sources in SQL Server and introduces the use of JOINs in T-SQL queries as a mechanism for retrieving data from multiple tables.

Lessons

- Understanding Joins
- Querying with Cross Joins & Self Joins
- Querying with Inner Joins & Outer Joins

Module 5: Sorting and Filtering Data

This module explains how to enhance queries to limit the rows they return, and control the order in which the rows are displayed. The module also discusses how to resolve missing and unknown results.

Lessons

- Sorting Data
- · Filtering Data with Predicates
- Working with Unknown Values
- · Filtering with the TOP and OFFSET-FETCH Options

Module 6: Working with SQL Server 2016 Data Types

This module explains the data types SQL Server uses to store data. It also explains conversions between data types, and the importance of type precedence. It introduces the many types of numeric and special-use data types.

Lessons

- Introducing SQL Server 2016 Data Types
- · Working with Date and Time Data
- Working with Character Data

Module 7: Using DML to Modify Data

This module describes the use of Transact-SQL Data Manipulation Language to perform inserts, updates and deletes to your data.

Lessons

- Data Insertion
- · Modifying and Deleting Data

Module 8: Using Built-In Functions

This module describes the use of functions that are built into SQL Server Denali and will discuss common usages including data type conversion, testing for logical results and nullability.

Lessons

- Using Logical Functions
- Using Conversion Functions
- Using Functions to Work with NULL
- Writing Queries with Built-In Functions

Module 9: Grouping and Aggregating Data

This module explores methods for grouping data within a query, aggregating the grouped data and filtering groups with HAVING.

Lessons

- Using Aggregate Functions
- Using the GROUP BY Clause
- Filtering Groups with HAVING

Module 10: Using Subqueries

This module describes the use of subqueries in various parts of a SELECT statement. It will include the use of scalar and multi-result subqueries, IN, and EXISTS operators.

Lessons

- Using the EXISTS Predicate with Subqueries
- Writing Correlated and Self-Contained Subqueries

Module 11: Using Set Operators

This module introduces the set operators UNION, INTERSECT, and EXCEPT to compare rows between two input sets.

Lessons

- Using APPLY
- Using EXCEPT and INTERSECT
- Writing Queries with the UNION Operator

Who Should Attend

This SQL 2016 Querying Certification course is ideal for:

- Database Administrators & Developers and Business Intelligence professionals.
- SQL power users namely, report writers, business analysts and client application developers.

Pre Requisite

- Basic knowledge of relational databases.
- Basic know-how of the Microsoft Windows operating system and its functionalities.

Exams

Querying Data With Transact-SQL [70-761]

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