QUERYING DATA WITH TRANSACT-SQL (M20761)

Course Code: 4395

Learn basic Transact-SQL queries for Microsoft SQL Server 2016.

This course is designed to introduce students to Transact-SQL. It is designed in such a way that the first part of the content can be taught as a course to students requiring the knowledge for other courses in the SQL Server curriculum. The remaining content focuses on the skills required to take exam 70-761.

This is MOC for course 20761.

*For more information on Microsoft SATVs, click here.

This course is also available in the On-Demand delivery format with digital Microsoft Official Courseware (dMOC). Click here to purchase.

What You’ll Learn

- Describe key capabilities and components of SQL Server.
- Describe T-SQL, sets, and predicate logic.
- Write a single table SELECT statement.
- Write a multi-table SELECT statement.
- Write SELECT statements with filtering and sorting.
- Describe how SQL Server uses data types.
- Write DML statements.
- Write queries that use built-in functions.
- Write queries that aggregate data.
- Write subqueries.
- Create and implement views and table-valued functions.
- Use set operators to combine query results.
- Write queries that use window ranking, offset, and aggregate functions.
- Transform data by implementing pivot, unpivot, rollup and cube.
- Create and implement stored procedures.
- Add programming constructs such as variables, conditions, and loops to T-SQL code.

Who Needs to Attend

The main purpose of the course is to give students a good understanding of the Transact-SQL language which is used by all SQL Server-related disciplines; namely,
Database Administration, Database Development and Business Intelligence. As such, the primary target audience for this course is: Database Administrators, Database Developers and BI professionals.

Prerequisites

Students should have a working knowledge of relational databases and a basic knowledge of the Microsoft Windows operating system and its core functionality.
CLASSROOM LIVE

$2,995 USD
5 days

Classroom Live Outline

1. Introduction to Microsoft SQL
   • The Basic Architecture of SQL Server
   • SQL Server Editions and Versions
   • Getting Started with SQL Server Management Studio

2. Introduction to T-SQL Querying
   • Introducing T-SQL
   • Sets
   • Predicate Logic
   • Logical Order of Operations in SELECT statements

3. Writing SELECT Queries
   • Writing Simple SELECT Statements
   • Eliminating Duplicates with DISTINCT
   • Using Column and Table Aliases
   • Writing Simple CASE Expressions

4. Querying Multiple Tables
   • Joins
   • Querying with Inner Joins
   • Querying with Outer Joins
   • Querying with Cross Joins and Self Joins

5. Sorting and Filtering Data
   • Sorting Data
   • Filtering Data with Predicates
   • Filtering with the TOP and OFFSET-FETCH Options
   • Working with Unknown Values

6. Working with SQL Server 2016 Data Types
• Introducing SQL Server 2016 Data Types
• Working with Character Data
• Working with Date and Time Data
7. Using DML to Modify Data
• Inserting Data
• Modifying and Deleting Data
8. Using Built-In Functions
• Writing Queries with Built-In Functions
• Using Conversion Functions
• Using Logical Functions
• Using Functions to Work with NULL
9. Grouping and Aggregating Data
• Using Aggregate Functions
• Using the GROUP BY Clause
• Filtering Groups with HAVING
10. Using Subqueries
• Writing Self-Contained Subqueries
  Writing Correlated Subqueries
  Using the EXISTS Predicate with Subqueries
11. Using Set Operators
12. Using Set
• Writing Queries with the UNION Operator
• Using EXCEPT and INTERSECT
• Using APPLY
13. Using Windows Ranking, Offset, and Aggregate
• Creating Windows with OVER
• Exploring Window Functions
14. Pivoting and Grouping Sets
• Writing Queries with PIVOT and UNPIVOT
• Working with Grouping Sets
15. Executing Stored
• Querying Data with Stored Procedures
• Passing Parameters to Stored Procedures
• Creating Simple Stored Procedures
• Working with Dynamic SQL
16. Programming with T-SQL
• T-SQL Programming Elements
• Controlling Program Flow
17. Implementing Error Handling
• Implementing T-SQL Error Handling
• Implementing Structured Exception Handling
18. Implementing Transactions
  • Transactions and the Database Engines
  • Controlling Transactions

Classroom Live Labs
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Lab 3: Writing Basic SELECT Statements
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Lab 11: Using Table Expressions
Lab 12: Using SET Operators
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Lab 14: Pivoting and Grouping Sets
Lab 15: Executing Stored
Lab 16: Programming with T-SQL
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Lab 18: Implementing Transactions
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VIRTUAL CLASSROOM LIVE  $2,995 USD  5 days

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Mar 23 - 27, 2020 | 8:30 AM - 4:30 PM EST
Apr 6 - 10, 2020 | 9:30 AM - 5:30 PM EST
Apr 27 - May 1, 2020 | 8:30 AM - 4:30 PM EST
May 11 - 15, 2020 | 8:30 AM - 4:30 PM EST
Jun 15 - 19, 2020 | 11:30 AM - 7:30 PM EST
Jul 13 - 17, 2020 | 8:30 AM - 4:30 PM EST
Jul 27 - 31, 2020 | 8:30 AM - 4:30 PM EST
Sep 14 - 18, 2020 | 8:30 AM - 4:30 PM EST
Sep 21 - 25, 2020 | 8:30 AM - 4:30 PM EST
Oct 5 - 9, 2020 | 8:30 AM - 4:30 PM EST
Oct 26 - 30, 2020 | 8:30 AM - 4:30 PM EST
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PRIVATE GROUP TRAINING 5 days

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