

20761C

Querying Data with Transact-SQL

Contents

Module 1: Introduction to Microsoft SQL Server 2016

Lesson 1: The Basic Architecture of SQL Server

Lesson 2: SQL Server Editions and Versions

Lesson 3: Getting Started with SQL Server Management Studio

Lab: Working with SQL Server 2016 Tools

Module 2: Introduction to T-SQL Querying

Lesson 1: Introducing T-SQL

Lesson 2: Understanding Sets

Lesson 3: Understanding Predicate Logic

Lesson 4: Understanding the Logical Order of Operations in SELECT Statements

Lab: Introduction to T-SQL Querying

Module 3: Writing SELECT Queries

Lesson 1: Writing Simple SELECT Statements

Lesson 2: Eliminating Duplicates with DISTINCT

Lesson 3: Using Column and Table Aliases

Lesson 4: Writing Simple CASE Expressions

Lab: Writing Basic SELECT Statements

Module 4: Querying Multiple Tables

Lesson 1: Understanding Joins

Lesson 2: Querying with Inner Joins

Lesson 3: Querying with Outer Joins

Lesson 4: Querying with Cross Joins and Self Joins

Lab: Querying Multiple Tables

Module 5: Sorting and Filtering Data

Lesson 1: Sorting Data

Lesson 2: Filtering Data with Predicates

Lesson 3: Filtering Data with TOP and OFFSET-FETCH

Lesson 4: Working with Unknown Values

Lab: Sorting and Filtering Data

Module 6: Working with SQL Server 2016 Data Types

Lesson 1: Introducing SQL Server 2016 Data Types

Lesson 2: Working with Character Data

Lesson 3: Working with Date and Time Data

Lab: Working with SQL Server 2016 Data Types

Module 7: Using DML to Modify Data

Lesson 1: Adding Data to Tables

Lesson 2: Modifying and Removing Data

Lesson 3: Generating Automatic Column Values

Lab: Using DML to Modify Data

Module 8: Using Built-In Functions

Lesson 1: Writing Queries with Built-In Functions

Lesson 2: Using Conversion Functions

Lesson 3: Using Logical Functions

Lesson 4: Using Functions to Work with NULL

Lab: Using Built-in Functions

Module 9: Grouping and Aggregating Data

Lesson 1: Using Aggregate Functions

Lesson 2: Using the GROUP BY Clause

Lesson 3: Filtering Groups with HAVING

Lab: Grouping and Aggregating

Module 10: Using Subqueries

Lesson 1: Writing Self-Contained Subqueries

Lesson 2: Writing Correlated Subqueries

Lesson 3: Using the EXISTS Predicate with Subqueries

Lab: Using Subqueries

Module 11: Using Table Expressions

Lesson 1: Using Views

Lesson 2: Using Inline TVFs

Lesson 3: Using Derived Tables

Lesson 4: Using CTEs

Lab: Using Table Expressions

Module 12: Using Set Operators

Lesson 1: Writing Queries with the UNION Operator

Lesson 2: Using EXCEPT and INTERSECT

Lesson 3: Using APPLY

Lab: Using Set Operators

Module 13: Using Window Ranking, Offset, and Aggregate Functions

Lesson 1: Creating Windows with OVER

Lesson 2: Exploring Window Functions

Lab: Using Window Ranking, Offset, and Aggregate Functions

Module 14: Pivoting and Grouping Sets

Lesson 1: Writing Queries with PIVOT and UNPIVOT

Lesson 2: Working with Grouping Sets

Lab: Pivoting and Grouping Sets

Module 15: Executing Stored Procedures

Lesson 1: Querying Data with Stored Procedures

Lesson 2: Passing Parameters to Stored Procedures

Lesson 3: Creating Simple Stored Procedures

Lesson 4: Working with Dynamic SQL

Lab: Executing Stored Procedures

Module 16: Programming with T-SQL

Lesson 1: T-SQL Programming Elements

Lesson 2: Controlling Program Flow

Lab: Programming with T-SQL

Module 17: Implementing Error Handling

Lesson 1: Implementing T-SQL Error Handling

Lesson 2: Implementing Structured Exception Handling

Lab: Implementing Error Handling

Module 18: Implementing Transactions

Lesson 1: Transactions and the Database Engine

Lesson 2: Controlling Transactions

Lab: Implementing Transactions