

COURSE OUTLINE



Course Code: DP-080T00

Course Name: Querying Data with Microsoft Transact-SQL



Course Overview

This course will teach the basics of Microsoft's dialect of the standard SQL language: Transact-SQL. Topics include both querying and modifying data in relational databases that are hosted in Microsoft SQL Server-based database systems, including: Microsoft SQL Server, Azure SQL Database and Azure Synapse Analytics.

Target Audience

This course can be valuable for anyone who needs to write basic SQL or Transact-SQL queries. This includes anyone working with data as a data analyst, a data engineer, a data scientist, a database administrator or a database developer. It can also be useful for others peripherally involved with data or wanting to learn more about working with data such as solution architects, students and technology managers.

Job role:

Database Administrator

Exam Requirements

DP-080

Prerequisites

Before starting this module, it's helpful to have experience of working with tables with data; for example in a spreadsheet.

Topics

Module 1: Introduction to Transact-SQL

This module provides an introduction to relational databases, the SQL language and Transact-SQL. You'll learn what kinds of statements make up the SQL language and look at the SELECT statement in detail.

- Understand what SQL is for
- Identify database objects in schemas.
- Identify SQL statement types.
- Use the SELECT statement.
- Work with data types
- Handle NULLs

Module 2: Sort and filter results in T-SQL

Learn how to sort and filter query results

- Sort your results
- Limit the sorted results
- Return paged results
- Remove duplicates
- Filter data with predicates

Module 3: Combine multiple tables with JOINs in T-SQL

Explore T-SQL queries accessing data from multiple tables with various kinds of JOIN operations.

- Describe join concepts and syntax
- Write queries that use inner and outer joins

- Write queries that use cross joins
- Write queries that use self joins

Module 4: Write Subqueries in T-SQL

Learn how to use subqueries to combine multiple SELECT statements and compose nested queries.

- Understand what subqueries are
- Use scalar or multi-valued subqueries
- Use self-contained or correlated subqueries

Module 5: Use built-in functions and GROUP BY in Transact-SQL

Learn how to use functions in Transact-SQL, and how to group aggregated results.

- Categorize built-in functions.
- Use scalar functions.
- Use ranking and rowset functions.
- Use aggregate functions.
- Summarize data with GROUP BY
- Filter groups with HAVING..

Module 6: Modify data with T-SQL

Learn how to use Transact-SQL to insert, update, and delete data in a database.

- Insert data into a table
- Generate automatic values
- Update data in a table
- Delete data from a table
- Merge data based on multiple tables

Exams and Certifications

No associated Exams. A Certificate of completion is issued at the end of the Course.

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