DP-080T00: Querying Data with Microsoft Transact-SQL

Course Details

Course Code: DP-080T00

Duration: 2 days

Notes:

- This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.
- Course content, prices, and availability are subject to change without notice.
- Terms and Conditions apply

Elements of this syllabus are subject to change.

About this course

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.

Audience Profile

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.

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.

Learning objectives

After completing this module, you'll be able to:

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

Sort and filter results in T-SQL

Learn how to sort and filter query results

Learning objectives

After completing this module, you will be able to:

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

Combine multiple tables with JOINs in T-SQL

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

Learning objectives

After completing this module, you will be able to:

- 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

Write Subqueries in T-SQL

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

Learning objectives

After completing this module, you will be able to:

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

Use built-in functions and GROUP BY in Transact-SQL

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

Learning objectives

After completing this module, you will be able to:

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

Modify data with T-SQL

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

Learning objectives

After completing this module, you will be able to:

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