GALILEU

DP-080: Querying Data with Microsoft Transact-SQL

Microsoft - Data & AI

- **Nível:** Entrada
- **Duração:** 14h

Sobre o curso

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.

Destinatários

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.

Objetivos

- Introduce relational databases, the SQL language and Transact-SQL
- Sort and filter query results
- Explore T-SQL queries accessing data from multiple tables with various kinds of JOIN operations
- Use subqueries to combine multiple SELECT statements and compose nested queries
- Use functions in Transact-SQL, and how to group aggregated results
- Use Transact-SQL to insert, update, and delete data in a database

Programa

- Introduction to Transact-SQL
- Sort and filter results in T-SQL
- Combine multiple tables with JOINs in T-SQL
- Write Subqueries in T-SQL
- Use built-in functions and GROUP BY in Transact-SQL
- Modify data with T-SQL

Introduction to Transact-SQL

- Work with schemas
- Explore the structure of SQL statements
- Examine the SELECT statement
- Work with data types
- Handle NULLs
- Exercise – Work with SELECT statements
- Knowledge check

Sort and filter results in T-SQL

- Sort your results
- Limit the sorted results
- Page results
- Remove duplicates
- Filter data with predicates
- Exercise – Sort and filter query results
- Knowledge check

Combine multiple tables with JOINs in T-SQL

- Understand joins concepts and syntax
- Use inner joins
- Use outer joins
- Use cross joins
- Use self joins
- Exercise – Query multiple tables with joins
- Knowledge check

Write Subqueries in T-SQL

- Understand subqueries

- Use scalar or multi-valued subqueries
- Use self-contained or correlated subqueries
- Exercise – Use subqueries
- Knowledge check

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

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

Modify data with T-SQL

- Insert data
- Generate automatic values
- Update data
- Delete data
- Merge data based on multiple tables
- Exercise – Modify data
- Knowledge check