

# Basics of Writing Queries in T-SQL Language on Microsoft SQL Server Platform

Course code: GOC277

Introductory course provides students with all necessary technical skill to write T/SQL queries for Microsoft SQL Server. Targeted platform is broad range actually supported Microsoft SQL Servers. The course is intended for junior database developers, administrators and power users or information workers.

## Who is the course for

Junior database administrators and developers

Power users or information workers

## What we teach you

- Write SELECT queries to retrieve data
- Group and summarize data by
- Join data from multiple tables
- Write queries that retrieve and modify data by using subqueries

## Required skills

Basic knowledge of relational databases {tables, relations, etc.}

## Course Outline

### Introduction to T-SQL

- Basic terminology (DCL, DDL, DML, comments, variables, loops, conditions)
- Data types
- Operators (logical, arithmetical, concatenation)
- System functions (GETDATE, CHARINDEX, ISNULL)
- Management Studio

### Basics of the SELECT statement

- Selecting data with SELECT, WHERE, FROM
- Columns, constants, expressions
- Conditions and operators

### Join tables

- Why and how join tables together
- INNER JOIN
- LEFT, RIGHT, FULL OUTER JOIN
- CROSS JOIN
- UNION

### Aggregation in queries

- Aggregation functions
- GROUP BY
- HAVING
- Duplicity testing
- Ranking functions (ROW\_NUMBER, NTILE, RANK, DENSE\_RANK)

### Subqueries

- Subquery in SELECT
- Subquery in FROM
- Subquery in WHERE

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