



SQL Training

Master Databases and
Efficiently Exploit Your Data

Target Audience



Any professional wishing to go beyond the basics of SQL

Prerequisites



- Basic knowledge of SQL recommended
- No mandatory technical prerequisites

Objectives



- Understand how relational databases work
- Write SQL queries to extract, filter, and group data
- Perform updates and deletions in tables
- Create views and subqueries to automate analysis

Duration



6 days – 42 hours

Teaching Methods



- Alternating practical exercises and theoretical input
- Training led by an expert instructor
- Digital materials provided

Assessment



- Evaluation at the beginning and end of the training
- Preparation for SQL certification (optional)
- Certificate of completion



Program

1. Introduction to SQL

- Basics of relational databases
- Table structure, primary and foreign keys
- Understanding data relationships

2. Fundamental queries

- SELECT, WHERE, operators (=, <, LIKE...)
- Sorting with ORDER BY, column and table aliases

3. Aggregation functions & grouping

- Using COUNT, SUM, AVG, MIN, MAX
- Grouping results with GROUP BY and filtering with HAVING

4. Multi-table queries (Joins)

- Mastering joins: INNER JOIN, LEFT JOIN, RIGHT JOIN
- Combining data from multiple tables efficiently

5. Data manipulation

- Inserting data: INSERT
- Updating records: UPDATE
- Deleting: DELETE
- Respecting constraints (integrity, data types)

6. Views and subqueries

- Creating views to automate analysis
- Using simple and correlated subqueries

7. Practical application

- Real-world case studies
- Building analysis reports using combined queries