## digicomp

## Standard SQL-3 («SQL»)

In this course you will learn the standard version of SQL. In many practical exercises, you will deepen and consolidate them, focusing on general concepts.

Duration: 2 days Price: 1'800.– Course documents: Digicomp Courseware (German)

### Content

- 1. Repetition of the basic concepts of relational databases
  - Database
  - Table (entities, attributes)
  - Data types (value ranges)
  - Primary, foreign key
  - Relations
  - Data Consistency, Referential Integrity
  - o View
  - Index
  - ERM
- 2. SQL basics
  - History
  - Application (basic concept)
  - SQL properties
  - SQL syntax diagrams
  - Naming conventions for objects
- 3. Data retrieval, data evaluation and data manipulation (DML)
  - SELECT
  - Simple queries
  - Constant Columns, Calculated Columns, Aliases
  - DISTINCT
  - ORDER BY
  - TOP
  - WHERE
  - Aggregate functions
  - GROUP BY / HAVING
    - JOIN (INNER, OUTER, FULL, SELF, CROSS)
  - Subqueries
  - UNION
  - SELECT INTO
- 4. Adding data
  - INSERT (VALUES, SELECT)
  - UPDATE
  - DELETE
- 5. Data Definition Language (DDL)
  - CREATE DATABASE
  - CREATE TABLE
  - Constraints (PRIMARY KEY, FOREIGN KEY, UNIQUE)
  - DROP TABLE
  - CREATE VIEW
  - OLD VIEW
  - DROP VIEW

#### • CREATE PROCEDURE

6. Data control language (DCL)

- Transaction management
  - COMMIT & ROLLBACK
  - GRANT & REVOKE

### Key Learnings

- This course will provide you with solid SQL basics. You will learn everything you need to know to thoroughly master Standard SQL.
- The many practical exercises provide an immediate plus in your daily work routine.
- The specially developed Digicomp course documentation also provides you with helpful practical tips after the course.

#### Target audience

Programmers, PC administrators and other people who want to work with an SQL-enabled database or create applications using the SQL capabilities of the database system. Persons who want to systematically inform themselves about SQL, its possibilities, limitations and meaning.

#### Additional information

This course is manufacturer-independent. So it does not matter if you work with Access, Oracle, DB/2, SQL Server, mySQL, SQL Server Express or other database management systems – the basics are always the same.

#### Further courses

- Administering an SQL Database Infrastructure
- Advanced Hands-on SQL Experience («ADVSQL»)

#### Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-software-engineering/programming-languages/course-standard-sql-3

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