Relational Database Design (SQL03)

ID SQL03   **Price** 1,590.— €(excl. tax)   **Duration** 2 days

Course Overview

Together with your trainer you will work out the basics, implementations and applications of relational database techniques and DWH structures

Who should attend

DB users who want to get into database creation. Users who want to optimize their queries. People who want to understand and evaluate databases.

Prerequisites

Good SQL knowledge as in the course SQL Standard Intensive Training

Course Objectives

You can understand database designs, query correctly and efficiently (with the appropriate SQL knowledge). You can design and create simpler databases.

Course Content

Motivation

Basic terms and DB concepts

Data dictionary and meta databases

Data integrity

- Data consistency
- Data protection
- Data security
- Transactions

Overview: models

- Hierarchical model
- Network model
- Relational model
- Object-oriented models

Normalize

- From the 1st to the 3rd normal form
- BCNF, 4th, 5th normal form

Overview: Design Methods

- Objectives, principles of design methods
- Method according to Zehnder
- ERD from Chen

The Entity Relationship Diagram (ERD)

- Formation of entity sets and relationships between entity sets
- Normalizing an ERD and mapping the ERD to data structures
- Identification keys, foreign keys, global and local attributes

Definition of consistency conditions

- Inherent, external consistency conditions
- Classes of consistency conditions

Reproduction of transactions

Outlook, trend of DBMS and trends

- Distributed database structures
- Graph databases (NoSQL)
- Document databases (NoSQL)
- Typical cloud data structures

About Fast Lane

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