

COURSE: Relational Database Design Fundamentals

The design of relational database is an important and inseparable part of the solution development. Those are knowledge and skills which every DB Dev or DB Designer should have. A huge part of the problems in production environment occur due to a bad modelling practises. The relational database classes of SQL

Master Academy focus on mastering of the relational design and the good modelling of the subject area, and last bit not least on applying good practices in modelling a scalable database.

Summary

| | |
|-------------------------|--------------------------|
| <i>Duration:</i> | <i>2 day/ 16 hours</i> |
| <i>Level:</i> | <i>200*</i> |
| <i>Delivery method:</i> | <i>In class</i> |
| <i>Language:</i> | <i>Bulgarian</i> |
| <i>Price:</i> | <i>350 Euro excl VAT</i> |

* The difficulty level is consistent with the widely accepted scale of technical difficulty of training on Microsoft Corp

AUDIENCE:

The attendees of this workshop are:

- Solution Architects, consultants and IT professionals who want to gain knowledge necessary to make architectural decisions in SQL Server Platform.
- Designers and developers who start their career in the database field
- Developers who are responsible for changing database design or responding to database change requirements

AFTER THE TRAINING ATTENDEES WILL BE ABLE TO:

- Understand the concepts of relational database theory
- Understand attribute relationships and relations
- Understand normal forms and perform normalization of a model
- Avoid some well-known bad practices in designing a database
- Analyse subject area requirements and build a conceptual and logical design
- Explain the good database model properties
- Make well-grounded decisions related to DB design
- Create a logical model of a database

TOPICS:

| | |
|-----------|--|
| Module 1. | Relational DB Fundamentals |
| Module 2. | Attributes and Relationships |
| Module 3. | Database Constraints and logical Integrity |
| Module 4. | Normalization |
| Module 5. | ER Modeling Principles |
| Module 6. | ER Modeling Case Study |

FUNDAMENTALS

SQL Server Fundamentals courses give you an excellent base for successful career as administrator or data base developer. Their practical purpose, use of scenarios of working practice will help both the beginners, as well as the more experienced students. The courses will assist the students to develop skills to protect in a better way the data of their organizations, to react quicker and adequate to all issues, which are data base related, and to avoid following some harmful myths and wrong concepts in administration and data base development.

- ❖ **SQL Server Administration Fundamentals**
- ❖ **SQL Server Development Fundamentals**
- ❖ **MS Windows & AD Administration for DBA's**
- ❖ **Querying SQL Server Fundamentals**

MASTERING

The trainings of SQL Server Mastering series consist of intensive modules which are comparatively complicated regarding the technical level and which are designed and intended for professionals in the field of SQL Server. Trainings include solid theoretical material, part of which comes directly from the program team, who develops SQL Server in Microsoft also numerous demonstrations from the "workshop" of SQL Server, unpublished tuning techniques for increase of SQL Server performance.

- ❖ **Mastering SQL Server for Database Admins**
- ❖ **Mastering SQL Server for Database Developers**
- ❖ **SQL Server Performance Tuning and Optimization**

DEEP DIVE

Deep Dive Series consists two and three day trainings with technical level 300+ (level 100 – beginners, level 400 – masters). Those courses are focused on specific components of SQL Server. They consist of a significant number of practical advices, a lot of demonstrations, huge theoretical part and also examples of real infrastructural solutions, discussions of real situations which students have in their infrastructures and want to discuss.

- ❖ **SQL Server High Availability and Disaster Recovery Solutions**
- ❖ **SQL Server Enterprise Infrastructure Optimization and Deployment**
- ❖ **SQL Server Upgrade**
- ❖ **SQL Server Replication Deep Dive**

BI

SQL Master Academy works in close partnership with SolidQ in the field of Business Intelligence trainings, due to which fact we have in our portfolio a unique programme of professional trainings in the field of Data Quality, Multidimensional Design, SSAS, ETL and SSIS. The courses train BI developers and designers of BI solutions, including back end EIM, as well as front end and reporting.

- ❖ **BI Fundamentals**
- ❖ **Accelerated SQL Server 2012 Integration Services**
- ❖ **Multidimensional Database Design with SSAS**
- ❖ **Data Quality and Master Data Management with SQL Server 2012-2016**
- ❖ **Personal Business Intelligence with MS Power BI**
- ❖ **Introduction to MS Business Intelligence**
- ❖ **Data Mining Algorithms in SSAS, Excel, R, and Azure ML**

DATABASE DESIGN

The design of relational data base is one important and inseparable part of the solution development. Those are knowledge and skills which every DB Dev or DB Designer should have. A huge part of the problems in production sphere are due to a not good base model or to such, which does not scale well. The courses for design of relational data base we offer in SQL Master Academy, are oriented not only to mastering of the relational model and the good design of the subject filed, but also to the mastering of good practices in modelling of scalable data base.

- ❖ **Relational Database Design Fundamentals**
- ❖ **Relational Database Design for Performance and Scalability**

SQL SERVER 2016

Explore the new version of the fastest performing database system in the market today – SQL Server 2016! Be prepared for InMemory OLTP, the new columnstore extensions and the brand new operational analytics possibilities, which can give your workload 30x-100x performance improvement. See how the Query Store, temporals, the new built-in security features and AlwaysOn groups works. Get all that you need to put your skills and your databases on track.

- ❖ **SQL Server Get Ready for DBA and DB Devs**
- ❖ **SQL Server 2016 for Business Intelligence Experts**
- ❖ **SQL Server Cloud based Solutions**