

## COURSE: SQL Server 2016 for Business Intelligence Experts

SQL Master Academy works in close partnership with SolidQ in the field of Business Intelligence trainings, due to which fact we also 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.

### Summary

*Duration:* 3 days/24 hours

*Level:* 300\*

*Delivery method:* In class

*Language:* English

*Price:* 950 EUR excl VAT

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

### AUDIENCE:

Attendees should have basic understanding of data analysis and relational data models. They should have experience with at least some of the following tasks:

- Reporting from a line of business system
- On-line analytical processing
- Data warehousing
- Data quality

### DESCRIPTION:

Get an overview of the components of a business intelligence (BI) solution from an enterprise to a personal level, from simple to the most advanced types of analyses, and get familiar with the BI in SQL Server 2016 suite, Power BI, and other Microsoft tools.

### AFTER THE TRAINING ATTENDEES WILL BE ABLE TO:

- Describe data warehousing components of the SQL Server Database Engine
- Understand benefits and limitations of reporting with SQL Server Reporting Services
- Define the role of SQL Server Integration Services in the extract-transform-load procedures
- Evaluate the data quality issues and possible resolutions
- Make a decision when to switch from reporting to on-line analytical processing
- Find the role of personal business intelligence in their ecosystems
- Asses the need for advanced analyses with data mining and / or machine learning
- Deliver a simple BI solution
- Define the architecture, the design, and the tools for a more advanced BI solution

### TOPICS:

Module 1. Introduction to BI

Module 2. Data warehousing with SQL Server

Module 3. Extract-transform-load (ETL) with SQL Server Integration Services (SSIS)

Module 4. Enhancing and maintaining data quality with Data Quality Services (DQS) and Master Data Services (MDS)

Module 5. Reporting with SQL Server Reporting Services (SSRS)

Module 6. On-line analytical processing (OLAP) with SQL Server Analysis Services (SSAS)  
Multidimensional

Module 7. Small and medium business (SMB) and personal OLAP with SSAS Tabular and Power Pivot

Module 8. Personal ETL and EIM with Power Query and Excel with MDS and Fuzzy Lookup Add-ins

Module 9. SMB and personal ad-hoc and mobile reporting, and creating dashboards with Power View, Power Map, Power BI Services, and Power BI Desktop

Module 10. Data mining and machine learning with SSAS Multidimensional, Excel, R, and Azure ML

**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.

- ❖ **MS Windows & AD Administration for DBA's**
- ❖ **Querying SQL Server Fundamentals**
- ❖ **SQL Server Administration Fundamentals**
- ❖ **SQL Server Development 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 Enterprise Infrastructure Optimization and Deployment**
- ❖ **SQL Server Upgrade**
- ❖ **SQL Server Replication Deep Dive**
- ❖ **SQL Server High Availability and Disaster Recovery Solutions**

**BI**

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- ❖ **Personal Business Intelligence with MS Power BI**
- ❖ **Introduction to MS Business Intelligence**
- ❖ **BI Fundamentals**
- ❖ **Accelerated SQL Server 2012-2016 Integration Services**
- ❖ **Multidimensional Database Design with SSAS 2012-2016**
- ❖ **Data Quality and Master Data Management with SQL Server 2012-2016**
- ❖ **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 2016 Get Ready for DBA and DB Devs**
- ❖ **SQL Server 2016 for Business Intelligence Experts**
- ❖ **SQL Server Cloud based Solutions**