

Introduction to MongoDB database server



Purpose of the training

The training provides you with a firm foundation in MongoDB database server deployment and management.

It is addressed to administrators , developers and data analysts.



Benefits of completing the training

Training participants will gain knowledge about architecture, configuration, functionalities and operations of MongoDB database server, including but not limited to:

- MongoDB server installation and configuration,
- data structure design and implementation
- data processing using MQL query language and JavaScript scripts,
- basic administrative operations,
- query performance management fundamentals .



Expected Listener Preparation

- General knowledge of computer science topics and concepts related to databases, as well as an ability to use the computer successfully.
- Basic knowledge of SQL
- Basic knowledge of JavaScript



Training Language

- Training: **English**
- Materials: **English**



Duration

2 days / 14 hours

Training agenda

1. Introduction to NoSQL database systems (motivations, characteristics and classification of solutions, comparison to relational database systems)
2. Introduction to MongoDB (architecture, basic concepts, JSON format, MongoDB server installation, configuration and management)
3. Implementing logical database structures (databases, collections, indexes, data modelling)
4. Data processing on MongoDB server (inserting, modifying and deleting documents, searching documents, selection predicates, projection, sorting, aggregation, atomic modifications, data validation using JSON Schema)
5. Fundamentals of query performance management (execution plans, guidelines)
6. Configuring MongoDB database replication
7. Basic administrative operations (backups, server monitoring, data migration, security management)
8. Implementing data processing scripts (JavaScript language)