

Hands-on course , 3
day(s)
Ref : MSQ

Participants

This course is for all IT
workers who need to develop
for MySQL.

Pre-requisites

Basic knowledge of an
operating system (Windows,
Linux/Unix).

Next sessions

Getting Started with MySQL

OBJECTIVES

This course will make it possible to acquire all the skills needed to effectively and reliably use the MySQL database: Using the SQL language, the objects of the database. This course also offers an introduction to administration.

[1\) Introduction and getting started](#)

[2\) Relational model, designing and creating a database](#)

[3\) Using SQL with MySQL](#)

[4\) InnoDB transactional tables](#)

[5\) Procedural SQL](#)

[6\) Connections, access rights, security](#)

[7\) Introduction to administration](#)

1) Introduction and getting started

- Versions, overview of features and tools.
- Resources and documentation.
- Installation procedure.
- Post-installation settings and first tests.
- The mysql command line client tool.
- The MySQL Query Browser graphical tool.

2) Relational model, designing and creating a database

- Design elements of a database schema
- Integrity constraints.
- MySQL data types (digital, chains, dates, specific types, etc.).
- Integrated MySQL functions.
- Types of tables (MyISAM, MEMORY, MERGE, InnoDB, etc.).
- Creating databases and tables.
- The INFORMATION_SCHEMA database.
- Character sets, internationalization.

Workshop

Designing and creating a database with MyISAM tables.

3) Using SQL with MySQL

- Single selections, comparisons, sorts.
- Multitable selections, different types of joins.
- Embedded queries, prepared queries.
- Changes and view management.

Workshop

Single selections, Multiple selections, internal and external joins, embedded requests. Data changes and deletions.

4) InnoDB transactional tables

- Notion of a transaction, isolation levels.
- Physical structure of tables.
- Transaction programming (START TRANSACTION, COMMIT, ROLLBACK).

Workshop

Implementing transactions

5) Procedural SQL

- Stored procedures and functions.
- Defining procedures Triggers.
- Managing errors.

Workshop

Writing stored procedures. Retrieving results using cursors. Creating and using triggers.

6) Connections, access rights, security

- Privilege levels and verifying rights.
- Managing users and their privileges.
- Making stored procedures and views secure.

Workshop

Managing privileges and passwords.

7) Introduction to administration

- Exporting data.
- Back-ups, the mysqldump command.
- Overview of MySQL installation.

Workshop

Exporting data.