MySQL for Beginners Ed 3

Duration: 4 Days

What you will learn

The MySQL for Beginners course helps you learn about the world's most popular open source database. Expert Oracle University instructors will teach you how to use the MySQL Server and tools, while helping you develop deeper knowledge of using relational databases.

Learn To:

Explain the relational database model.
Describe the features and benefits of MySQL.
Install and configure the MySQL server and clients.
Design efficient databases.
Use Structured Query Language (SQL) to build your database and query data.
Employ appropriate MySQL tools.

Benefits to You

This course will teach you everything you need to know to start using the incredibly popular MySQL database in your Web, Cloud and embedded applications. In learning about MySQL, you will develop an understanding of relational databases and how to design a robust and efficient database. You will harness that power by learning SQL and use it to build databases, populate them with data and query that data through extensive hands-on practices.

Manage Your MySQL Database

This course also introduces you to more advanced tools and techniques to help you manage your MySQL database and data. At the end of the course, you will be confident in your abilities to use the MySQL database and put your new skills to work.

Audience

Administrator
Database Administrators
Database Designers Developer

Related Training

Required Prerequisites
Basic computer literacy is required

Suggested Prerequisites
Knowledge of database concepts.

Previous experience with any command-line program.

Course Objectives

Explain MySQL storage engines
Explain database transactions
Obtain database metadata
Describe MySQL GUI tools
Monitor database performance
Perform database backup and recovery
Export and import database data
Describe the features and benefits of MySQL
Explain the basics of relational databases
Design an effective database
Build a database and tables by using SQL Modify or delete database entities
Query data with the SELECT command
Join data from multiple tables
Perform nested subqueries
Use built-in MySQL functions

Course Topics

Introduction to MySQL
Course Goals
Course Lesson Map
MySQL Overview
MySQL Database Server Editions
MySQL Products
MySQL Services and Support
MySQL Resources
Example Databases

MySQL Server and Client
MySQL Client/Server Model
Communication protocols
MySQL Connectors
The LAMP Stack
Installation of the MySQL server
MySQL Server and Client Startup Keyboard
Editing
Session Logging With the tee File

Database Basics
Basics of Relational Databases

Spreadsheet versus Database
Entities and Relationships
Relationship Categories
SQL Language and MySQL
SQL data definition language
SQL data manipulation language

Database Design
Database Modeling
Structure and Cardinality Diagram (ERD)
Keys
Normalization
Database Design
Viewing and Evaluating a Database

Table Data Types
Data Types as Part of Database Design
Numeric Data Types
Temporal Data Types
Character String Data Types
Character Set and Collation Support
Binary String Data Types
Data Type Considerations the
Meaning of NULL

Database and Table Creation
Creating a Database
Creating a Table
Showing How a Table Was Created
Column Options
Table Options
Table Indexing
Table Constraints

Basic Queries
The SELECT Statement
Troubleshooting
SQL Modes for Syntax Checking
Common SQL Modes
MySQL Workbench for SQL Development

Database and Table Maintenance
Deleting databases and tables
Creating a new table using an existing table
Confirming the creation of a new table
Copying an existing table structure
Creating a temporary table

Adding, removing and modifying table columns
Adding, removing and modifying indexes and constraints

Table Data Manipulation
Manipulating Table Row Data
The INSERT Statement
The REPLACE Statement
The UPDATE Statement
The DELETE Statement

Functions
Functions in MySQL Expressions
Using Functions
String Functions
Temporal Functions
Numeric Functions
Control Flow Functions
Aggregate Functions
Spaces in Function Names

Exporting and Importing Data
Exporting with a Query
Exporting with a MySQL Utility
Importing from a Data File
Importing with a MySQL Utility

Joining Tables
Combining Multiple Tables
Joining Tables with SELECT
Comma-Separated Joins
Inner Joins
Outer Joins
Table Name Aliases

Table Subqueries
Advantages of Using a Subquery
Placement of Subqueries
Subquery Categories
Subquery Result Table Types
Subquery Type/Placement
Finding Mismatches
Modifying Tables using Subqueries Converting
Joins to Subqueries

MySQL Graphical User Interface Tools
MySQL Workbench
MySQL Enterprise Monitor

Supplementary Information

Storage Engines
Creating Views
Transactions
Retrieving Metadata
Performance Schema
MySQL Enterprise Backup

Conclusion

Course Goals
MySQL Curriculum Path
MySQL Resources
Evaluation Final
Q&A