



## MySQL for Beginners Ed 3

Duration: 4 Days Course Code: D61918

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### Overview:

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.

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### Target Audience:

- Administrator
  - Database Administrators
  - Database Designers
  - Developer
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### Objectives:

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

Required Prerequisites

- Basic computer literacy is required
- Suggested Prerequisites

- Knowledge of database concepts.
  - Previous experience with any command-line program.
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## Content:

### 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

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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