

# MySQL - COURSE CONTENT

## **Ch1: Introduction to MySQL**

- ☐ Course Goals
- ☐ Course Lesson Map
- ☐ MySQL Overview
- ☐ MySQL Database Server Editions
- ☐ MySQL Products
- ☐ MySQL Resources
- ☐ Example Databases

## **Ch2: MySQL Server and Client**

- ☐ MySQL Client/Server Model
- ☐ Communication protocols
- ☐ MySQL Connectors
- ☐ The LAMP Stack
- ☐ Installation of MySQL Server
- ☐ MySQL Server and Client Startup
- ☐ Keyboard Editing
- ☐ Session logging with tee file

## **Ch3: Database Basics**

- ☐ Basics of Relational Databases
- ☐ Spreadsheet versus Databases
- ☐ Entities and Relationships
- ☐ Relationship Categories

- ☐ SQL language and MySQL
- ☐ SQL data definition language
- ☐ SQL data manipulation language

#### **Ch4: Database Design**

- ☐ Database Modelling
- ☐ Structure and Cardinality Diagram (ERD)
- ☐ Keys
- ☐ Normalization
- ☐ Database Design
- ☐ Viewing and Evaluating a Database

#### **Ch5: 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

#### **Ch6: Database and Table Creation**

- ☐ Creating a Database
- ☐ Creating a Table
- ☐ Showing how a Table was Created
- ☐ Column Options
- ☐ Table Options

- ☐ Table Indexing
- ☐ Table Constraints

### **Ch7: Basic Queries**

- ☐ The SELECT statement
- ☐ Troubleshooting
- ☐ SQL Modes for Syntax Checking
- ☐ Common SQL Modes
- ☐ MySQL Workbench for SQL Development

### **Ch8: Database and Table Maintenance**

- ☐ Deleting databases and tables
- ☐ Creating a new table using an existing one
- ☐ 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

### **Ch9: Table Data Manipulation**

- ☐ Manipulating Table Row Data
- ☐ The INSERT Statement
- ☐ The REPLACE Statement
- ☐ The UPDATE Statement
- ☐ The DELETE Statement

### **Ch10: Functions**

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

### **Ch11: Exporting and Importing Data**

- ☐ Exporting with a Query
- ☐ Exporting with a MySQL Utility
- ☐ Importing from a Data File
- ☐ Importing with a MySQL Utility

### **Ch12: Joining Tables**

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

### **Ch13: 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

#### **Ch14: MySQL Graphical User Interface Tools**

- ☐ MySQL Workbench
- ☐ MySQL Enterprise Monitor

#### **Ch15: Supplementary Information**

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

#### **Ch16: Conclusion**

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