

# MySQL Fundamentals Ed 1

## Introduction to MySQL

- Course Goals
- Course Lesson Map
- Classroom Environment
- MySQL Overview
- What is MySQL Cloud Service
- What it means to provision a MySQL Cloud Service instance
- How an instance of MySQL Cloud Service differs from having an on-premises instance
- How MySQL course content covers material that applies whether you run MySQL locally or in MySQL Cloud Service

## MySQL Server and Client

- MySQL Client/Server Model
- MySQL Connectors
- Installation of the MySQL server
- Setting the root Password
- Starting and stopping the MySQL server
- Using the mysql client
- MySQL Workbench

## 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

## Designing Your Database

- Database Modeling
- Keys
- Normalization
- Database Design
- Viewing and Evaluating a Database

## Data Types

- Data Types as Part of Database Design
- Numeric Data Types
- Temporal Data Types
- String Data Types
- Character Set and Collation Support
- Data Type Considerations
- The Meaning of NULL

## Creating Databases and Tables

- Creating a Database
- Creating a Table
- Showing How a Table Was Created

- Column Options
- Table Options
- Indexes, Keys, and Constraints

## Modifying Databases and Tables

- 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

## Querying Table Data

- The SELECT Statement
- Creating Views
- Querying Data from an Application
- Exporting and Importing a Delimited File
- Troubleshooting: Authorization Levels

## Modifying Table Data

- Manipulating Data
- Inserting records
- Replacing existing records
- Updating existing records
- Deleting records
- Exporting and importing a script
- Multistatement Transactions
- Modifying Data from an Application

## Functions

- Functions in MySQL Expressions
- Using Functions
- String Functions
- Date and time functions
- Numeric Functions
- Aggregate Functions
- Spaces in Function Names

## Joining Tables

- Querying Multiple Tables
- Joining Tables with SELECT
- Inner Joins
- Outer Joins
- Table Name Aliases

## Conclusion

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