

MySQL Bootcamp

This course will teach you how to explore, modify, and export data from a database. You'll be introduced to foundational concepts like tables, data types, and queries. Once you understand the basics of viewing tables, you'll be introduced to more advanced querying techniques like filtering and aggregating. You will be able to drill down into specific cases or step back and see larger patterns. You'll also learn how to combine information from different tables using join statements and views. The final day of the course will cover advanced techniques like creating subqueries and stored procedures. This course will use MySQL, an advanced open-source database. Concepts from this course will apply equally to other databases such as Postgres and SQL Server, with the minor syntax differences noted during class.

Group classes in NYC and on-site training is available for this course. For more information including upcoming class dates and pricing, visit training-nyc.com/courses/mysql-bootcamp or email contact@nyimtraining.com

Course Outline

Introduction to MySQL

What is a database and why do we need SQL?

Top 5 problems in Excel and why using SQL solves this problem

Should we import from Excel and why? How it is done?

Create a link to Excel spreadsheet with MySQL?

Tables & Queries

How to Create Tables 101

- SQL Data Types
- Primary Keys
- Null values and Not Null Values
- Auto Increment

How to Create a Basic Query

- Use the Where clause
- Conditional statements
- Multiple conditions
- Comparison Operators
- Logic Values
- Null Values
- Patterns also known as Wildcard characters
- Compare Column Values

Advanced Queries

- Distinct Values
- Top Values
- Date Functions
- Date Calculations
- Aggregate Functions
- String Functions
- Sort Data
- Rank Data

Save a Query

Execute a Query

Modify a Saved Query

Data Wrangling

Group Data

Filtering Grouped Data

Summarize Group Data

Pivot and Unpivot Operators

Data Analytics

Joins

- Inner Join
- Left Join
- Full Outer Join
- Self-Join
- Unions
- Except and Intersect

Presenting and Making Sense of Query Results

Saving the Query Results and Exporting

Generating Reports

Tables & Queries

Importing and Exporting Data

Update Data

Queries

- Distinct Values
- Top Values
- Subqueries with "In"
- Inline Views

Views

Create a Simple View

With Check Option

Locks and Transactions

Exclusive Table Locks

Shared Table Locks

Using Variables

Setting Variables with Selects

Select/Update Example

Simple Transactions

MySQL Functions

String to Date and Date Format

Control Flow Functions

Casting Functions

Stored Procedures

Introduction to Stored Procedures

Changing the Delimiter

Editing a Stored Procedure

Variable Scope

A Data Generating Procedure

Triggers

Introduction to Triggers

Validating Triggers

Triggers and Transactions

User Defined Functions

Functions vs Procedures

User-Defined Functions