

# SQL Bootcamp (PostgreSQL)

Explore, modify, and export data from databases in PostgreSQL. Learn foundation concepts like tables, data types, and queries, and advanced techniques like join statements, subqueries, and stored procedures.

Group classes in NYC and onsite training is available for this course. For more information, email [contact@nyimtraining.com](mailto:contact@nyimtraining.com) or visit: <https://mimi.training-nyc.com/courses/postgresql-bootcamp>



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## Course Outline

### Foundations

#### Basic Concepts

- What is a relational database?
- What is SQL?
- What is Postgres?
- Database tables
- Rows and columns
- Data types

#### Graphical User Interface

##### Object Explorer

- Query Window
- Results Grid
- Setting Options

### Querying

#### Select Statements

- Syntax of a SELECT statement
- Selecting specific columns
- Using a LIMIT clause
- Distinct records
- Using a WHERE clause
- Field and Table Aliases

#### Filtering and Aggregating

- Filtering with Text Criteria
- Wildcard Filters
- Filtering with Numeric Criteria
- Using SUM, COUNT and AVG
- Using MAX and MIN
- Group-by Statements

## Adding Data

### Creating tables

- Primary keys
- Foreign keys
- Data normalization
- Create statement
- Constraints

### Inserting data

- Insert statement
- Nulls, empty strings and zeros
- Update Statement
- Setting Conflict Actions

## Combining tables

### Joins

- Inner Joins
- Full Outer Joins
- Left/Right Joins

### Views

- Creating a view
- Performance issues

## Advanced Topics

### Advanced querying

- Subqueries
- Querying JSON data

### Stored Procedures

- Creating a stored procedure
- Transactions
- Temp Tables

### Functions

- String Functions
- Cast Function
- Convert Function

- Rounding Functions

### **Dealing with CSVs**

- Loading data from a CSV
- Exporting a table to CSV