

SQL Level 1

Learn the fundamentals of SQL (Structured Query Language) and relational databases, so you can start writing SQL queries to extract and understand the information stored in databases.

Group classes in NYC and onsite training is available for this course. For more information, email hello@nobledesktop.com or visit: <https://www.nobledesktop.com/classes/sql-level-1>



hello@nobledesktop.com • [\(212\) 226-4149](tel:(212)226-4149)

Course Outline

Foundations of SQL & Databases

SQL Fundamental Concepts

- What is SQL & why is it used?
- Flavors of SQL: SQL Server vs Postgres vs MySQL
- Database Tables, Rows, & Columns

Exploring Databases & Writing SQL Statements (with the free SQL Server Management Studio app)

- Connecting to a Database (and Creating our Training Database using a provided SQL script)
- Object Explorer
- SQL Query Editor
- Using Code Hints
- Viewing the Results of your SQL query
- Setting Preferences (Options)

Writing SQL Queries

Writing SELECT Statements

- Syntax of a SELECT statement
- Selecting all columns or specific columns from a table
- Limiting the number of results using TOP
- Ordering the results using ORDER BY
- Returning only DISTINCT records (eliminating duplicates)

Filtering Results

- Data Types (Strings vs Numbers)
- Comparison Operators: equal to, greater or less than, not equal to, etc.

- Filtering results using WHERE, AND, OR, IN, and NOT
- Pattern Matching: Wildcard Filters
- Case Sensitivity

Using Joins to Combine Data from Multiple Tables

Understanding Table Relationships

- What are Primary vs Primary Keys
- Creating ER (Entity Relationship) Diagrams to visual what's in a database
- Database Relations: One-to-One, One-to-Many, & Many-to-Many

Inner Joins

- The difference between Inner & Outer Joins
- Inner Joins
- Column & Table Aliases

Outer Joins

- Left Join
- Right Join
- Full Join