SQL for Developers

Description

Whether you use SQL Server, Oracle, MySQL, SQLLite, PostgreSQL, or another relational database you need to know how to use Structured Query Language (SQL). In this course you are guided step-by-step to building SQL to read, order, filter, and modify data in a relational database. The course also shows you how to aggregate data, build subqueries, join two or more tables, and group data. You also learn to create stored procedures, user-defined functions, and views. The most widely used date, math, string, conversion, and JSON manipulation functions are also covered. Several methods of importing and exporting data into and out of a database are illustrated. Finally, you learn the basics of query optimization using built-in tools, indexes, and writing efficient queries. Throughout the course you are provided with the best practices of how these apply to application development.

All the demos you are shown during this course are backed up with a set of labs for you to perform. Walking through these labs step-by-step ensures that you understand the concepts illustrated in each lesson.

Join Paul D. Sheriff, one of the best instructors in the industry, on your journey to becoming a SQL programmer.

Level

Beginner

Audience

You are a programmer that needs to display and modify data in a relational database. You are a QA person that needs to setup and tear-down databases for testing. You are a development manager that needs to communicate better with their DBAs or developers. You are a DBA who wants to refine their SQL skills.

Course Objectives

By the end of this course, you will be able to write queries against one or multiple tables, aggregate data, insert, update, and delete data in tables. You will be able to write stored procedures, user-defined functions, and views to help you with your development projects. You will be comfortable filtering data using WHERE clauses and writing subqueries. You will also have learned the basics of query optimization. This course focuses on just what you need as a developer, not as a DBA.

- Quick Introduction to SQL for Developers
- SQL for Developers: Course Overview
- A Quick Introduction to Relational Databases
- Retrieving Data with SELECT
- Working With SELECT Filters and Expressions
- Ordering Data Using ORDER BY
- Get Subsets of Data with WHERE
- Aggregating Data
- Using Subqueries to Filter Data
- Add, Edit, and Delete Data
- Retrieve Data from Multiple Tables with JOINs
- Set Operators (UNION, EXCEPT, INTERSECT)
- Group Data Using GROUP BY and HAVING
- Working with Date Data Types
- Working with the String Data Type
- Rounding, Math, Null, Data, and Decision Functions
- Manipulating JSON and XML Data
- Creating and Using Stored Procedures
- Creating and Using User-Defined Functions
- Creating and Using Views
- The Basics of Query Optimization
- Monitoring Queries

Prerequisites

No prior SQL experience is necessary for this course. I assume you are familiar with a programming language such as JavaScript, jQuery, or C#. You are also familiar with Visual Studio or Visual Studio Code.

Hardware/Software Requirements

A computer must be supplied by the student with the following technologies installed.

- SQL Server (Developer Edition or higher)
- or SQL Server Express