

Why you should learn SQL

Everyone should learn SQL.

While that seems like an incredibly bold statement, learning SQL can be one of the greatest career decisions you make. Between the potential salary, no longer relying on others to give you information, and being able to ask ANY question about your business, learning SQL enables you to do so much more than you could have done previously.

What is SQL?

SQL (Structured Query Language) is the primary language responsible for managing data and data structures contained within a relational database management system (RDBMS). Put simply, SQL is the language you use to interact with a database. There are four basic operations that SQL can perform: INSERTs, SELECTs, UPDATEs, and DELETEs (these are sometimes referred to as CRUD operations - create, read, update, delete).

What are some database concepts?

A database, in simplest terms, is an organized collection of data. A database is comprised of many tables, and a table stores rows of data in a structured format defined by the table's columns. This represents the basic hierarchy of a database. When writing SQL queries, you are interacting with rows of data stored in tables contained within a database.

Why should you learn SQL?

1) Because you can earn really good money.

This point shouldn't be too hard to sell; most people would love to be able to make a little more hard-earned cash. Learning SQL is a great way to do this. The average SQL Developer salary, according to Indeed.com, was \$92,000! SQL DBAs (Database Administrators - the people who make sure the databases are running properly and performing as best they can) have an average salary of \$97,000! Considering that the United States median household income is around \$52,000, an income nearly twice that of the median household income signifies a pretty good living.

2) Because SQL is one of the most sought-after skills by hiring employers.

Employers are seeking out those individuals who know SQL. It's one thing to be able to earn a high salary (see point #1), but employers know the value that someone skilled in SQL brings to their company and want to employ these individuals. If you are looking to change employers, learning SQL makes you a highly sought after prospect.

3) Because you can get an answer to any question you ask.

Think of all the questions you ask about your data on a regular basis. What were our sales last year? What is our average customer satisfaction rating? At what rate have we reduced expenses since last summer? These are all questions that can be answered using SQL. Once you identify the database that stores the data you seek to explore, SQL empowers you to answer your own questions. You no longer need to rely on overly simplified, pre-built reports or emailing co-workers to track down data. SQL enables you to become a more self-sufficient employee.

4) Because you no longer have to deal with Excel crashing.

Ever crashed Excel because you had a ton of rows in a spreadsheet? Relational databases are designed to store millions and millions of rows of data (even billions of rows). SQL allows you perform operations on this vast amount of data without having to worry about crashing a program not designed for that amount of information. Microsoft Excel is a great tool; it

just isn't meant to perform operations on tens of millions of rows at once. Relational databases are designed for those larger operations, and SQL is the language that allows you complete them.

5) Because you won't ever have to ask yourself, "How did I make that report again?"

SQL queries can be easily saved and re-used at any point in time. SQL code can also be edited with comments, so you can include clear descriptions directly in your query. When you work with Excel, you might be stuck doing a long multi-step process. First, you might have to export data from some standard report, then sort it, then add headers, then filter out certain values, and on, and on, and on, and on...

With SQL code, you simply write the code once, save it, re-open it, and re-run it if you ever need to produce a report twice. Think of the hours - even DAYS - that you could get back each month by not having to manually produce reports that could easily be automated.