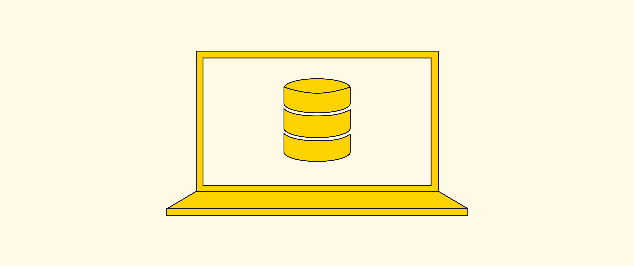
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**What is SQL used for?**

SQL (Structured Query Language) is a programming language used to query and manipulate data stored in relational databases. The language is becoming increasingly popular as we find more and more ways to use data. Last year, SQL was the third most popular programming language used by developers who responded to Stack Overflow's survey.

One of SQL's greatest advantages is its utility for both technical and non-technical professionals. Below, we'll delve into the benefits of using SQL and its applications in different industries.

## **Why would you want to learn SQL?**

As illustrated by the skyrocketing demand for data scientists, data manipulation is a highly sought skill. Businesses and organizations use data to learn more about their clients — their tastes and preferences, behaviors across different platforms, etc. — making SQL an essential component of any data scientist's skill set.

You'll also want to learn SQL if you're considering a career in back-end development, as you'll need it to manage the databases behind your servers and applications.

One of SQL's biggest selling points is that it's super easy to learn, with a syntax that reads almost like a natural language.

SELECT firstname, lastname

FROM users

WHERE state = 'Maine';

Even if you're completely new to programming, you can probably figure out what the code snippet above is supposed to do — it's pretty straightforward.

Because it's so easy to learn, SQL's also great for non-technical roles. Marketing and sales teams can use SQL to collect the data they need without waiting on their technical teammates.

Let's say you're working for an e-commerce company, and your manager asks you to generate a list of all the items purchased in December by customers in New York. You could do so manually, going through each order one by one, or you could use SQL to query the company's database with a code that looks something like this:

SELECT \*

FROM orders

WHERE state = 'New York' and monthname(order\_date) = 'December'

Clearly, SQL is the way to go. And this is only the beginning of what you can do with the language. In another post, we take a closer look into SQL's advantages for non-technical teams.

Now that you understand some of SQL's advantages, let's explore how it's used in different industries.

## **What is SQL used for in finance?**

In finance teams, transactional data are stored in relational databases. SQL can be used to easily search for either single instances of data or for data that match a set of requirements, like withdrawals over $5,000 in the last month.

Finance departments can also use SQL to pull data they can analyze for trends and anomalies. For instance, SQL could be used to query the cost of commodities over the last year, and any unexpected entries could be flagged for investigation.

## **What is SQL used for in marketing?**

Do you subscribe to emails full of curated content? You might be a fan of a particular blog that sends you articles once a week, or you've got a subscription to an e-newspaper. The developers at these companies collect data on the stories you read in relational databases.

Then, marketing teams use SQL to analyze the data for insights into which content their readers enjoy most — allowing them to create more of the same. They can also find more nuanced trends, like which forms of content their readers prefer or peak engagement times throughout the day. SQL allows marketing teams to make informed, data-driven decisions rather than relying solely on speculation.

## **What is SQL used for in data science?**

Data scientists collect and analyze data for predictive analysis, reporting, building machine learning models, and more. SQL plays a prominent role in data science because it allows data scientists to query data and pull specific sets of related information — meaning they spend less time sifting through data and more time delivering results.

## **How to learn SQL**

You don't need to have an extensive programming background to begin using SQL. As you saw in the examples above, its readable syntax makes it easy to learn — even if you're completely new to coding.

Even if you aren't a data scientist or back-end developer, consider learning SQL. It'll allow you to take the initiative and dive into your company's data to find valuable insights — meaning no more waiting around for your technical teammates. Once you've learned the basics of SQL programming, learn advanced SQL techniques for marketers and product managers.