

1-Month SQL Roadmap for Beginners

What is SQL?

SQL (Structured Query Language) is the language used to communicate with databases. Almost every modern company stores data inside databases, and SQL is the primary tool used to retrieve, filter, clean, transform, and analyze that data. Whether it is customer information, sales numbers, app activity, financial transactions, marketing performance, or product analytics, SQL sits at the center of how businesses make decisions. Today, SQL is one of the most valuable technical skills for data analysts, business analysts, product analysts, data scientists, analytics engineers, and BI developers.

Why SQL is Important in the AI Era

Many people assume AI will reduce the importance of SQL. In reality, the opposite is happening. Modern AI systems still depend heavily on structured data. Most AI workflows, dashboards, reporting systems, and analytics pipelines pull data from SQL databases. Even AI-powered analytics tools often generate SQL queries in the background. People who understand SQL can work better with AI tools, validate AI-generated insights, and build stronger analytics systems.

Week 1: Beginner SQL Foundations

Learn the basics of querying data and understanding how databases work.

- SELECT statements
- WHERE conditions
- ORDER BY
- GROUP BY
- COUNT, AVG, SUM
- Basic analyst queries

SQL Basics for Data Analysts Playlist

<https://www.youtube.com/playlist?list=PLUaB-1hjhk8GT6N5ne2qpf603sF26m2PW>

Week 2: Intermediate SQL

Start solving real business problems using joins, subqueries, and logical conditions.

- INNER JOIN and LEFT JOIN
- CASE WHEN
- UNION and HAVING
- Subqueries
- Views and aliases

Intermediate SQL Tutorials Playlist

<https://www.youtube.com/playlist?list=PLUaB-1hjhk8HTgPnBukmMq7QTe83ANirL>

Week 3: Advanced SQL

Learn advanced querying techniques used in analytics and reporting systems.

- CTEs
- Window Functions
- PARTITION BY
- ROW_NUMBER and RANK
- Temp Tables
- String Functions

Advanced SQL Tutorials Playlist

<https://www.youtube.com/playlist?list=PLUaB-1hjhk8EBZNL4nx4Otoa5Wb--rEpU>

Week 4: SQL Projects and Portfolio Building

Apply your SQL knowledge using real-world datasets and portfolio projects.

- Data Cleaning
- Exploratory Data Analysis
- Portfolio Projects
- Business-focused SQL analysis
- Real-world datasets

SQL Data Exploration Project

<https://www.youtube.com/watch?v=qfyynHBFOsM>

SQL Data Cleaning Project

<https://www.youtube.com/watch?v=8rO7ztF4NtU>

MySQL Exploratory Data Analysis Project

<https://www.youtube.com/watch?v=QYd-RtK58VQ>

Data Cleaning in MySQL Full Project

<https://www.youtube.com/watch?v=4UltKCnnnTA>

Alex The Analyst SQL Projects GitHub

<https://github.com/AlexTheAnalyst/PortfolioProjects>

Recommended Daily Routine

45 to 60 minutes watching tutorials.

60 to 90 minutes practicing queries manually.

Modify every query you learn.

Practice writing queries without copying directly.

Build at least 2 complete projects by the end of the month. SQL becomes easier through repetition and consistent practice.