

SQL Tutorial for Beginners: Learn SQL in 7 Days

SQL Tutorial Summary

Databases can be found in almost all software applications. SQL is the standard language to query a database. This SQL tutorial for beginners will teach you database design. Also, it teaches you basic to advanced SQL.

What Should I Know?

The course is designed for SQL beginners. No prior DB experience is required.

SQL Syllabus

Database Fundamentals

L	What is a Database? — Definition, Meaning, Types, Example
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What is SQL? — Learn SQL Basics, SQL Full Form & How to Use

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MySQL Workbench Tutorial for Beginners — How to Install MySQL Workbench & Use

Database Design

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Database Design Tutorial — Learn Data Modeling

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What is Normalization? — 1NF, 2NF, 3NF, BCNF
Database Example

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What is ER Modeling? — Learn with Example

SQL Basics

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MySQL Create Table — How to Create Database in MySQL

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MySQL SELECT Statement — Learn with Example

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MySQL WHERE Clause — AND, OR, IN, NOT IN
Query Example

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MySQL INSERT INTO Query — How to add Row in
Table (Example)

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MySQL DELETE Query — How to Delete Row from
a Table

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MySQL UPDATE Query — Learn with Example

Data Sorting

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ORDER BY in MySQL — DESC & ASC Query with EXAMPLE

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SQL GROUP BY and HAVING Clause — Learn with Example

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MySQL Wildcards Tutorial — Like, NOT Like, Escape, (%), (_)

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MYSQL Regular Expressions (REGEXP) — What is, Syntax and Examples

Functions

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MySQL Functions — String, Numeric, User-Defined, Stored

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MySQL Aggregate Functions Tutorial — SUM, AVG, MAX, MIN , COUNT, DISTINCT

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Must Know Stuff!

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MySQL IS NULL & IS NOT NULL Tutorial — Learn with Example

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MySQL AUTO_INCREMENT — Learn with Example

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MYSQL - ALTER, DROP, RENAME, MODIFY — What is, Syntax with Examples

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MySQL LIMIT & OFFSET — Learn with Example

Most Dreaded Topics!

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MySQL SubQuery Tutorial — Learn with Example

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MySQL JOINS Tutorial — INNER, OUTER, LEFT, RIGHT, CROSS

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MySQL UNION — Complete Tutorial

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MySQL Views — How to Create View from Tables
with Examples

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MySQL Index Tutorial — Create, Add & Drop

What Next!

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Your First Application using MySQL and PHP —
Getting Started!

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Oracle MySQL 5.6 Certification — Oracle MySQL
5.6 Study Guide

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SQL vs MySQL — What's the Difference Between
SQL and MySQL?

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Best SQL Tools — 25 Best SQL Tools, Database
Software & IDE

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SQL Query Builders & Editor — 10 Best SQL Query Builders & Editor

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Free SQL Courses — 11 Best Free SQL Courses & Certification

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SQL Books — 14 Best SQL Books for Beginners and Experts

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SQL Cheat Sheet — SQL Commands Cheat Sheet

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SQL Interview Questions — Top 50 SQL Interview Questions and Answers

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SQL Tutorial PDF — Download SQL Tutorial PDF for Beginners

What is a DBMS?

A database management system (DBMS) is a software used to store and manage data. It guarantees the quality, durability, and confidentiality of information. The most popular type of DBMS are Relational Database Management Systems, or RDBMSs. Here, the database consists of a structured set of tables and each row of a table is a record.

What is SQL?

Structured Query Language (SQL) is the standard language for data manipulation in a DBMS. In simple words it's used to talk to the data in a DBMS. Following are types of SQL Statements

1. Data Definition Language (DDL) allows you to create objects like Schemas, Tables in the database
2. Data Control Language (DCL) allows you to manipulate and manage access rights on database objects
3. Data Manipulation Language (DML) is used for searching, inserting, updating, and deleting data, which will be partially covered in this SQL tutorial.

What is a Query?

A Query is a set of instructions given to the database management system. It tells any database what information you would like to get from the database. For example, to fetch the student name from the database table STUDENT, you can write the SQL Query like this:

```
SELECT Student_name from STUDENT;
```

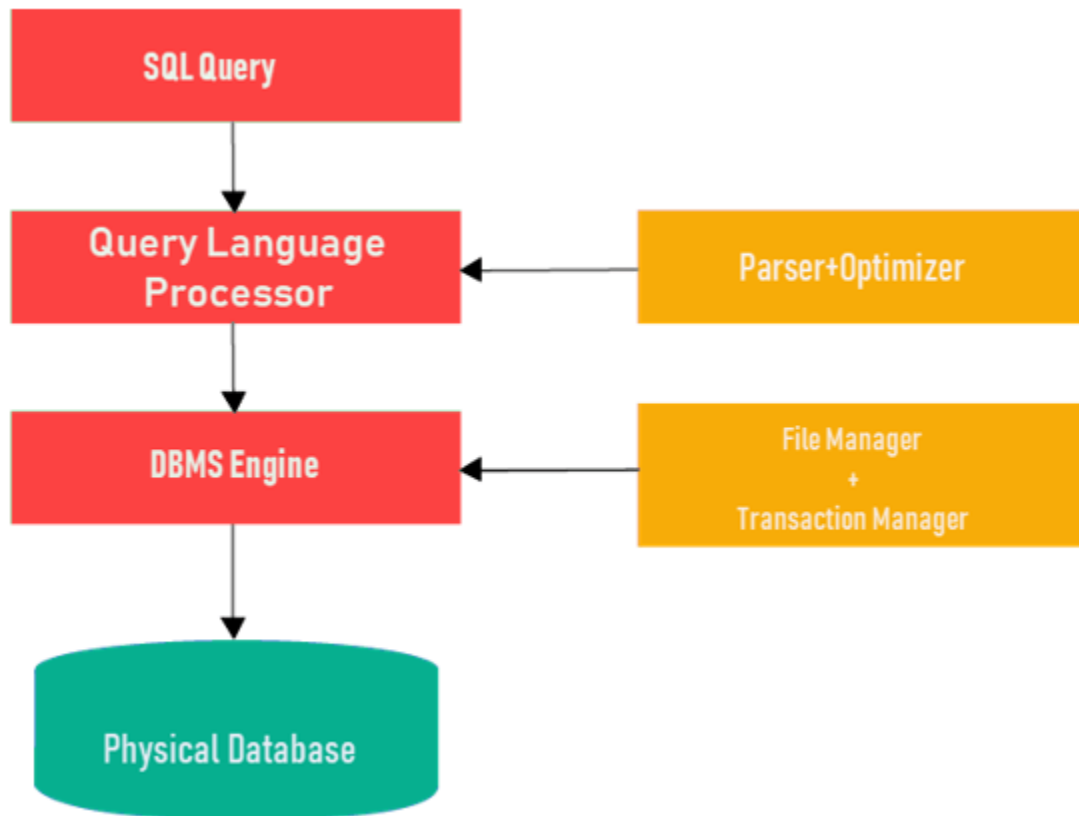
SQL Process

When you want to execute an SQL command for any DBMS system, you need to find the best method to carry out your request, and SQL engine determines how to interpret that specific task.

Important components included in this SQL process are:

- SQL Query Engine
- Optimization Engines
- Query Dispatcher
- Classic Query Engine

A classic query engine allows you to manage all the non-SQL queries.



SQL Process

SQL Optimization

Knowing how to make queries is not too difficult, but you need to really learn and understand how data storage works, and how queries are read in order to optimize SQL performance.

Optimizations are based on two key factors:

1. Making the right choices when defining the database structure
2. Applying the most appropriate methods to read the data.

What will you learn in this SQL Course?

This SQL basics tutorial is designed for anyone planning to work with databases, especially in the roles of system administrators and application developers. The tutorials help beginners learn the basic SQL commands, including SELECT, INSERT INTO, UPDATE, DELETE FROM, and more. Each SQL command comes with clear and concise examples.

In addition to the list of SQL commands, the tutorial presents flashcards with SQL functions, such as AVG(), COUNT(), and MAX(). Along with these, quizzes help validate your basic knowledge of the language.

This SQL course will help you handle various aspects of the SQL programming language.

Why should you learn SQL?

SQL is an easy-to-learn language specifically designed to work with databases. There is a growing demand for professionals who can handle databases. Almost every big company is using SQL. It is widely used in various sectors like ticket booking, banking, social media platforms, data sharing, eCommerce, etc., so there are vast opportunities available for the SQL developer