

INTRODUCTION TO SQL

A Beginner's Guide





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Purpose of the Notes

This guide is made for beginners to understand the basics of SQL. It provides a clear introduction to essential concepts, preparing you for further learning.

Introduction to SQL

- ➤ SQL is a Structured Query Language used to access and manipulate databases.
- ➤ SQL became a standard of the American National Standards Institute (ANSI) in 1986 and of the International Organization for Standardization (ISO) in 1987.
- SQL is a standard language for storing, manipulating, and retrieving data in databases. It was developed in the 1970s by IBM researchers Raymond Boyce and Donald Chamberlin.

What Can SQL Do?

- > SQL can execute queries against a database.
- > SQL can retrieve data from a database.
- > SQL can insert records into a database.
- > SQL can update records in a database.
- SQL can delete records from a database.
- > SQL can create a new database.
- > SQL can set permissions on tables, procedures, and views.
- ➤ SQL can create or define virtual tables for simplified and secure data access.

What is My SQL?

- ➤ MySQL is an open-source relational database management system (RDBMS). MySQL is software that uses SQL, which stands for Structured Query Language.
- > MySQL is compliant with the ANSI SQL standard.
- ➤ MySQL was first released in 1995.
- MySQL is known for being fast, reliable, and easy to use.

<u>DBMS</u>:- Database management system. <u>RDBMS</u>:- Relational database management system.

What is DBMS?

- DBMS stands for Database Management System. It is software that manages data in a database. We can arrange data in a tabular format.
- A DBMS is a software system used to store, retrieve, and run queries on data. It serves as an interface between an end user and a database, allowing users to create, read, update, and delete data in the database.

What is RDBMS?

- ➤ RDBMS stands for Relational Database Management System. RDBMS is software used to maintain a relational database.
- ➤ RDBMS is the basis for all modern database systems, such as MySQL, Microsoft SQL Server, Oracle, and Microsoft Access. RDBMS uses SQL queries to access the data in the database.

Which type of data show in SQL?

- Tabular data is arranged in a table, with rows and columns.

 Sports statistics are usually presented in a tabular format.
- A table organizes information in rows and columns. Information presented in this format is considered tabular.

What is the meaning of a data and database?

• <u>Data</u>:- Data is a collection of raw facts and figures.

• <u>Database</u> :- A database is a combination of different tables

Difference between SQL and MySQL.

SQL	MY SQL
SQL is Structured Query Language.	MySQL is a relational database management system (RDBMS).
• SQL is used to query databases.	My sql stores data.
• SQL commands remain consistent across different systems.	MySQL software is updated regularly.
• It's a query programming language that manages relational databases (RDBMS).	 Its is relation database management system that use in sql
• SQL codes commands are used in Oracle,Sql server DB2,Mysql etc.	• It uses SQL as its query language.
• SQL does not provide connectors it is a language specification.	MySQL provides integrated tools called MySQL Workbench.