

 Learning Objectives

After studying this lesson, students will be able to:

- The processing skills of SQL.
- The components of SQL.
- To create a table by specifying the fields and records.
- To apply various manipulations like inserting, updating and deleting records in a table.
- To learn about various constraints and to apply it on tables.
- To generate queries in the table by applying various clauses.
- To modify the structure of an existing table.
- The commands to delete records, table and revoke the commands.

12.1 Introduction to SQL ↪

The Structured Query Language (SQL) is a standard programming language to access and manipulate databases. SQL allows the user to create, retrieve, alter, and transfer information among databases. It is a language designed for managing and accessing data in a Relational Data Base Management System (RDBMS).

There are many versions of SQL. The original version was developed at IBM's Research centre and originally called as Sequel in early 1970's. Later the language was changed to SQL. In 1986, ANSI (American National Standard Institute) published an SQL standard that was updated again in 1992, the latest SQL was released in 2008 and named as SQL 2008.

**Note**

Latest SQL standard as of now is SQL 2008, released in 2008.

12.2 Role of SQL in RDBMS ↪

RDBMS stands for Relational DataBase Management System. Oracle, MySQL, MS SQL Server, IBM DB2 and Microsoft Access are RDBMS packages. SQL is a language used to access data in such databases.