

SQL Commands

- **Types of SQL statements/commands -**

1. DDL(Data Definition language)
2. DQL/DRL(Data Query Language or Data Retrieve Language)
3. DML(Data Manipulation Language)
4. DCL(Data Control Language)
5. TCL(Transaction Control Language)

- **DDL(Data Definition Language) -**

DDL or Data Definition Language actually consists of the SQL commands that can be used to define the database schema. DDL commands are mentioned below -

- **CREATE:** Create TABLE, DATABASE, INDEX or VIEW
- **DROP:** Delete TABLE, DATABASE, or INDEX
- **ALTER TABLE:** Add/Remove columns from table
- **TRUNCATE:** Removes all records from a table.
- **RENAME:** Rename an existing object in the table.

- **DQL(Data Query Language) -**

DQL consists of commands that can feasibly retrieve the data from the database using a single command. DQL commands are mentioned below -

- **SELECT:** Select data from database.

- **DML(Data Manipulation Language) -**

DML commands are used to make modifications to the database. DQL commands are given below -

- **INSERT:** Insert data into a table.
- **UPDATE:** Update table data.

- **DELETE:** Delete rows from a table.

- **DCL(Data Control Language)-**

DCL commands are used to grant and take back authority from users.

DCL commands are given below -

- **GRANT:** Access privileges to the database.
- **REVOKE:** Withdraws the user's access privileges.

- **TCL(Transaction Control Language)-**

TCL commands are used to manage transactions done in the database. Some of the TCL commands are given below -

- **BEGIN TRANSACTION:** It is used to begin a transaction.
- **COMMIT:** It used to apply changes and end transactions.
- **ROLLBACK:** It used to discard changes and end transactions.
- **SAVEPOINT:** It points within the groups of transactions in which to ROLLBACK.

- **Concept of Dual tables:**

Can we use the SELECT command without using FROM keyword (or without using Tables)?

- This could be achieved using the Dual Tables concept.
- Definition - Dual Tables are dummy tables that are already created by MySQL itself. The significance of dual tables is that we can make temporary changes without disturbing the user-defined tables.
- You can find the current time of the system, can perform mathematical calculations using dual tables, convert the string from lower-case to upper-case and vice-versa, etc.

Syntax :

SELECT <STATEMENT_TO_EXECUTE>;

Example:

1. SELECT 1000 + 100;

Output: 1100

2. SELECT ucase("coding ninjas");

Output CODING NINJAS

Other keywords - NOW(), current_timestamp(); will display time.