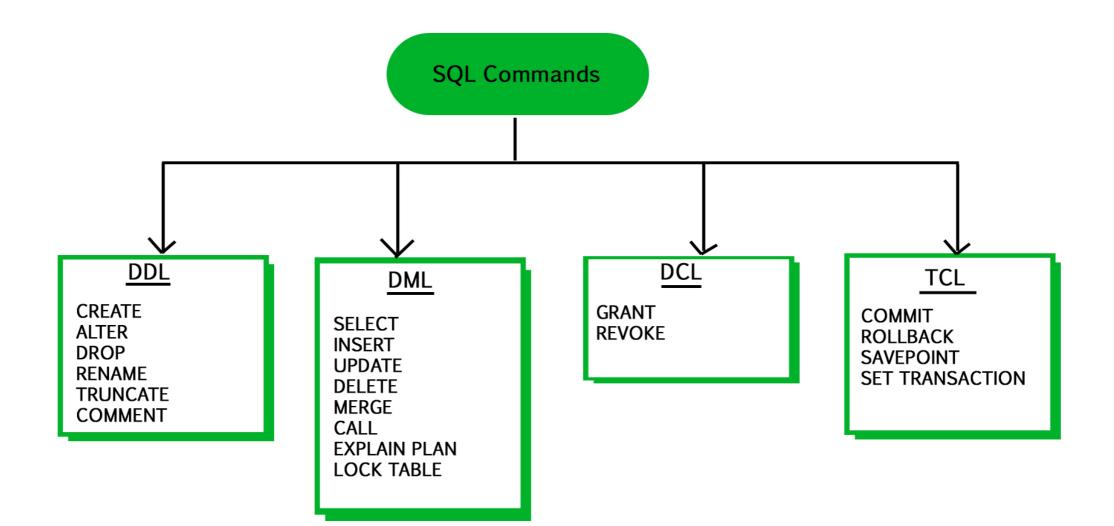
- <u>Purpose</u>. To create and maintain database on a cmptr.
- **Examples** Database mgt sys using SQL language are Oracle, mysql, ms access, dbase, foxpro, maria db, etc.
- Sql statements commonly used can be categorised as DDL, DML & DCL.



- SQL is a database language designed for the <u>retrieval and mgt</u> of data in database.
- 5 types of SQL queries
- Data Definition Language (DDL) **Defines** the database structure or schema
- Data Manipulation Language (DML) Allows to **modify** the database instance by inserting, modifying, and deleting its data.
- Data Control Language(DCL) GRANT and REVOKE, which are useful to give "rights & permissions."
- Transaction Control Language(TCL) Deal with the transaction within the database.
- Data Query Language (DQL) Used to **fetch** the data from the database.

DATA DEFINITION LANGUAGE (DDL)

• <u>Used</u>:-

- Define data and their relationship to other types of data.
- Create files, databases, data dictionary and tables within databases.
- Specify structure of each table, set of associated values with each attribute, integrity constraints, security and authorisation info for each table and physical storage structure of each table on disk.

DATA DEFINITION LANGUAGE (DDL)

S No	Need and Usage	The SQL DDL Statement
1	Create Schema Objects	CREATE
2	Alter Schema Objects	ALTER
3	Delete Schema Objects	DROP
4	Rename Schema Objects	RENAME
5	To delete data in a table	TRUNCATE

DATA MODIFICATION LANGUAGE (DML)

• Used for :-

- Basic data manipulation operations on data held in database. It allows user to insert, update, delete and retrieve data from the database.
- The part of dml that involves data retrieval is called query languages.

DATA MODIFICATION LANGUAGE (DML)

S No	Need and Usage	The SQL DDL Statement
1	Remove rows from table or view	DELETE
2	Add new rows of data into table or view	INSERT
3	Retrieve data from one or more tables	SELECT
4	Update data in tables	UPDATE

DATA CONTROL LANGUAGE (DCL)

- <u>Used for</u> :-
 - To control access to data and database using statements such as 'grant' and 'revoke'. A privilege is granted using 'grant' statement.

- <u>Privileges</u> - select, alter, delete, execute, insert, index etc.

- Using revoke, the same can be revoked.

DATA CONTROL LANGUAGE (DCL)

S No	Need and Usage	The SQL DDL Statement
1	Grant and take away privileges and roles.	GRANT, REVOKE
2	Add a comment to the data dictionary	COMMENT

* In practice DDL & DML are not two different languages but part of same sql.

