DDL: Data Definition Language

CREATE, DROP, ALTER, TRUNCATE

DML: Data Manipulation Language

INSERT, UPDATE, DELETE

DQL: Data Query Language

SELECT

4. AND/OR: Used to combine multiple conditions.

SELECT column\_name

FROM table\_name

WHERE condition1 AND/OR condition2;

5. UPDATE: Used to update existing records.

Updating all data in a single column:

UPDATE table\_name

SET co1=val1;

Updating data in specific row(s) using ‘WHERE’ clause:

UPDATE table\_name

SET co1=val1

WHERE condition;

Updating data in multiple columns:

UPDATE table\_name

SET col1=val1,col2=val2,.....

WHERE condition;

6. DELETE: Used to delete existing records.

Deleting all records:

DELETE FROM table\_name;

Deleting specific records:

DELETE FROM table\_name

WHERE condition;

***NOTE:* For Updating and Deleting records without WHERE clause in MySQL, we need to disable the safe update functionality.**

**SET SQL\_SAFE\_UPDATES = 0;**

**We can enable the safe update functionality by using,**

**SET SQL\_SAFE\_UPDATES=1;**

7. ALTER: Used to change the structure of the table.

ADD column:

ALTER TABLE table\_name

ADD COLUMN column\_name data\_type;

DROP column:

ALTER TABLE table\_name

DROP COLUMN column\_name;

MODIFY datatype:

ALTER TABLE table\_name

MODIFY column\_name new\_data\_type; (MySQL)

ALTER TABLE table\_name

ALTER COLUMN column\_name TYPE new\_data\_type (PostgreSQL)

8. BETWEEN: Used to retrieve data within a given range.

SELECT column\_name

FROM table\_name

WHERE column\_name BETWEEN val1 AND val2;

9. LIKE: Used to perform pattern matching.

Wildcard: **%**, **\_**

SELECT column\_name

FROM table\_name

WHERE column\_name LIKE pattern;

10. DROP: Remove the entire table.

DROP DATABASE database\_name;

***Important***

**Difference between DROP, TRUNCATE, and DELETE.**

**DROP: DROP TABLE table\_name;**

1. **Deletes the entire table. DATA + STRUCTURE**
2. **We need to create the table again.**
3. **Doesn’t use the ‘WHERE’ clause.**

**TRUNCATE: TRUNCATE TABLE table\_name;**

1. **Deletes all the data from the table. Retains the structure.**
2. **Resets the auto-increment constraint.**
3. **Doesn’t use the ‘WHERE’ clause.**

**DELETE: DELETE FROM table\_name;**

1. **Deletes all the data from the table. Retains the structure.**
2. **Doesn’t reset the auto-increment constraint.**
3. **Can be used with ‘WHERE’ clause to delete specific records only.**

**DELETE FROM table\_name**

**WHERE condition;**

RENAME: Used to rename columns and tables.

Renaming a column:

ALTER TABLE table\_name

RENAME COLUMN column\_name TO new\_column\_name;

Also in MySQL,

ALTER TABLE table\_name

CHANGE column\_name new\_column\_name data\_type;

Renaming a table:

RENAME TABLE table\_name

TO new\_table\_name;

***NOTE:* Multiple ALTER statements can be executed in a single SQL query, except the RENAME statement. It needs to be executed separately.**