

# SQL COMMANDS

## DDL COMMANDS:

### CREATE

CREATE statements is used to define the database structure schema:

```
CREATE TABLE TABLE_NAME (COLUMN_NAME DATATYPES[,....]);
```

**For example:**

```
Create database university;  
Create table students;  
Create view for_students;
```

### DROP

Drops commands remove tables and databases from RDBMS.

```
DROP TABLE ;
```

**For example:**

```
Drop object_type object_name;  
Drop database university;  
Drop table student;
```

### ALTER

Alters command allows you to alter the structure of the database.

To add a new column in the table

```
ALTER TABLE table_name ADD column_name COLUMN-definition;
```

To modify an existing column in the table:

```
ALTER TABLE MODIFY(COLUMN DEFINITION....);
```

**For example:**

```
Alter table student add subject varchar;
```

### TRUNCATE:

This command used to delete all the rows from the table and free the space containing the table.

```
TRUNCATE TABLE table_name;
```

### Example:

```
TRUNCATE table students;
```

## DML COMMANDS:

### INSERT:

This is a statement is a SQL query. This command is used to insert data into the row of a table.

```
INSERT INTO TABLE_NAME (col1, col2, col3,.... col N)
VALUES (value1, value2, value3, .... valueN);
Or
INSERT INTO TABLE_NAME
VALUES (value1, value2, value3, .... valueN);
```

### For example:

```
INSERT INTO students (RollNo, FirstName, LastName) VALUES ('60', 'Tom', Erichsen');
```

### UPDATE:

This command is used to update or modify the value of a column in the table.

```
UPDATE table_name SET [column_name1= value1,...column_nameN = valueN] [WHERE CONDITION]
```

### For example:

```
UPDATE students
SET FirstName = 'Jhon', LastName= 'Wick'
WHERE StudID = 3;
```

### DELETE:

This command is used to remove one or more rows from a table.

```
DELETE FROM table_name [WHERE condition];
```

### For example:

```
DELETE FROM students
WHERE FirstName = 'Jhon';
```

## **DCL:**

DCL (Data Control Language) includes commands like GRANT and REVOKE, which are useful to give "rights & permissions." Other permission controls parameters of the database system.

### **Grant:**

This command is use to give user access privileges to a database.

```
GRANT SELECT, UPDATE ON MY_TABLE TO SOME_USER, ANOTHER_USER;
```

### **For example:**

```
GRANT SELECT ON Users TO 'Tom'@'localhost';
```

### **Revoke:**

It is useful to back permissions from the user.

```
REVOKE privilege_name ON object_name FROM {user_name | PUBLIC | role_name}
```

### **For example:**

```
REVOKE SELECT, UPDATE ON student FROM BCA, MCA;
```

## **TCL:**

### **Commit**

This command is used to save all the transactions to the database.

```
Commit;
```

### **For example:**

```
DELETE FROM Students  
WHERE RollNo =25;  
COMMIT;
```

### **Rollback**

Rollback command allows you to undo transactions that have not already been saved to the database.

```
ROLLBACK;
```

### **Example:**

```
DELETE FROM Students  
WHERE RollNo =25;
```

## SAVEPOINT

This command helps you to sets a savepoint within a transaction.

```
SAVEPOINT SAVEPOINT_NAME;  
EX:  
SAVEPOINT RollNo;
```

## DQL:

Data Query Language (DQL) is used to fetch the data from the database. It uses only one command:

## SELECT:

This command helps you to select the attribute based on the condition described by the WHERE clause.

```
SELECT expressions  
FROM TABLES  
WHERE conditions;
```

### For example:

```
SELECT FirstName  
FROM Student  
WHERE RollNo > 15;
```