DDL Commands

In this sub section, let us learn the usage of below commands with examples.

**1. CREATE:**

CREATE command is used to create a table, schema or an index.

**Syntax:**

**CREATE** **TABLE** table\_name (

column1 datatype,

column2 datatype,

....);

**Example:**

**CREATE** **TABLE** CUSTOMERS(

InsuranceID **INT**,

Name **VARCHAR**(50),

DOB **DATE**,

NIN **INT**,

Location **VARCHAR**(255)

);

**2. ALTER:**

ALTER command is used to add, modify or delete columns or constraints from the database table.

**Syntax:**

**ALTER** **TABLE** Table\_name **ADD** column\_name datatype;

**Example:**

**ALTER** **TABLE** CUSTOMERS **ADD** email\_id **VARCHAR**(50);

**3. TRUNCATE:**

TRUNCATE command is used to delete the data present in the table but this will not delete the table.

**Syntax:**

**TRUNCATE** **table** table\_name;

**Example:**

**TRUNCATE** **table** CUSTOMERS;

**4. DROP:**

DROP command is used to delete the table along with its data.

**Syntax:**

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

**Example:**

**DROP** **TABLE** CUSTOMERS;

**5. RENAME:**

RENAME command is used to rename the table name.

**Syntax:**

RENAME **TABLE** table\_name1 **to** new\_table\_name1;

**Example:**

RENAME **TABLE** CUSTOMERS **to** CUSTOMERINFO;

**6. COMMENT**

**Single-Line Comments:**

Statements starting with -- are treated as single line comments.

**Example:**

*--Line1;*

**Multi-Line comments:**

Statements enclosed in /\*\*/ are treated as Multi-line comments

*/\* Line1,*

*Line2 \*/*

# DML Commands

In this sub section, let us learn the usage of below commands with examples.

## 1. INSERT:

INSERT Statement is used to insert new records into the database table.

### Syntax:

**INSERT** **INTO** table\_name (column1, column2, column3, ...) **VALUES** (value1, value2, value3, ...);

Note: Column names are optional.

### Example:

Both the below ways are correct.

**INSERT** **INTO** CUSTOMERS (InsuranceID, Name, DOB, NIN, Location,email\_id) **VALUES** ('123', 'Mango','2000-01-01','56789','LO','Mango@xyz.com');

**INSERT** **INTO** CUSTOMERS **VALUES** ('123', 'Mango','2000-01-01','56789','LO','Mango@xyz.com');

## 2. SELECT:

Select statement is used to select data from database tables.

### Syntax:

**SELECT** column1, column2, ...

**FROM** table\_name

[**where** **condition**];

### Example:

**SELECT** \* **FROM** CUSTOMERS;

## 3. UPDATE:

UPDATE statement is used to modify the existing values of records present in the database table.

### Syntax:

**UPDATE** table\_name

**SET** column1 = value1, column2 = value2, ...

**WHERE** **condition**;

### Example:

**UPDATE** CUSTOMERS **SET** email\_id = 'mango.lo@xyz.com' **WHERE** InsuranceID='123';

## 4. DELETE:

DELETE statement is used to delete the existing records present in the database table.

### Syntax:

**DELETE** **FROM** table\_name **where** **condition**;

### Example:

**DELETE** **FROM** CUSTOMERS **where** InsuranceID='123';

# DCL Commands

In this sub section, let us learn the usage of below commands in detail.

# 1. GRANT:

GRANT statement is used to provide access privileges to users to access the database.

## Syntax:

**GRANT** privileges **ON** object **TO** **user**;

**Note:** Privileges can be SELECT, INSERT, UPDATE, DELETE, TRUNCATE, REFERENCES, TRIGGER, CREATE, ALL. You can also specify combination of these privileges in a statement.

### GRANT Connect to Database

**GRANT** **CONNECT** **ON** DATABASE database\_name **TO** username;

### GRANT Usage on Schema

**GRANT** USAGE **ON** SCHEMA database\_name **TO** username;

### Grant access to all tables in the database:

**GRANT** **ALL** PRIVILEGES **ON** **ALL** TABLES **IN** SCHEMA schema\_name **TO** username;

**GRANT** **ALL** PRIVILEGES **ON** **ALL** SEQUENCES **IN** SCHEMA schema\_name **TO** username;

**GRANT** **ALL** PRIVILEGES **ON** DATABASE database\_name **TO** username;

### Grant permission to create database:

**ALTER** **USER** username CREATEDB;

### Grant superuser access to a user:

**ALTER** **USER** myuser **WITH** SUPERUSER;

## 2. REVOKE:

REVOKE statement is used to withdraw the access priviliges given to a user by GRANT statement.

### Syntax:

**REVOKE** privileges **ON** object **FROM** **user**;

### Example:

**REVOKE** **DELETE**, **UPDATE** **ON** ORDERS **FROM** customer1;

# TCL Commands

In this sub section, let us learn the usage of below commands in detail.

## 1. COMMIT:

COMMIT statement is used to save all the changes made to the database in the current transaction.

### Syntax:

**COMMIT**;

## 2. ROLLBACK:

ROLLBACK statement is used to revert the changes made to a database table in the current transaction.

### Syntax:

**ROLLBACK**;

## 3. SAVEPOINT:

SAVEPOINT statement is used to define a identifier which points to the named transaction savepoint.

### Syntax:

**SAVEPOINT** savepoint\_name;

**ROLLBACK** **TO** savepoint\_name;

How to delete a savepoint:

**RELEASE** **SAVEPOINT** savepoint\_name;