# DDL-Data Definition Language

DDL is used to construct an object in the database and deals with the Structure of the Object

DDL commands are auto committed.

## 1. CREATE:

" IT IS USED TO BUILD / CONSTRUCT AN OBJECT ".

How to Create a Table:

- Name of the table. (Tables cannot have same names)
- Number of Columns.
- Names of the columns.
- Assign datatypes for the Columns.
- Assign Constraints [ NOT MANDATORY]

*Syntax to create a table:*

```
CREATE TABLE Table_Name(
        Column_Name1 datatype constraint_type,
        Column_Name2 datatype constraint_type,
        Column_Name3 datatype constraint_type,
        Column_NameN datatype constraint_type …
);
```

```
CREATE TABLE Table_Name(
        Column_Name1 datatype constraint_type ,
        Column_Name2 datatype constraint_type ,
        . .
        Column_NameN datatype,
        Constraint constraint_name Foreign key references
        Parent_Table_Name(Column_Name)
);
```

**Example**:

```
Create table Customer(
Cid  int primary key,
Cname varchar(10),
contact int not null,
Address varchar(15) default 'Pune'
);

Create table Product (
pid int primary key,
pname varchar(20),
price decimal(7,3) check(price>0),
cid int,
Constraint cid_fk Foreign key(cid) references Customer(cid)
);

CREATE TABLE DEPARTMENTS (
DEPARTMENT_ID DECIMAL PRIMARY KEY,
DEPARTMENT_NAME VARCHAR(30) NOT NULL,
LOCATION_ID VARCHAR(20),
FOREIGN KEY (LOCATION_ID) REFERENCES LOCATIONS(LOCATION_ID )
);
```

**NOTE:**

To Describe the table:

Syntax**: DESC Table_Name**;

## 2. Rename:

"IT IS USED TO CHANGE EXISTING NAME OF AN OBJECT."

*Syntax to rename a table:*
**RENAME TABLE** TABLE_NAME **TO** NEW_NAME;

**Example:**
RENAME TABLE Customer TO cust;

## 3. Alter:

**"**IT IS USED TO MODIFY THE STRUCTURE OF THE TABLE.**"**

1. *Syntax to add a column:*
   **ALTER TABLE** Table_Name **ADD** Column_Name Datatype Constraint_type;

   **EXAMPLE:**
   ALTER TABLE customer ADD email varchar(20) not null;

2. *Syntax to Remove a column:*
   **ALTER TABLE** Table_Name **DROP COLUMN** Column_Name;

   **Example:**
   ALTER TABLE customer DROP COLUMN email;

3. *Syntax to Rename a column:*
   **ALTER TABLE** Table_name **RENAME COLUMN** Column_Name **TO** New_name

   **Example:**
   ALTER TABLE customer RENAME COLUMN location TO address;

4. *Syntax to modify datatype*
   **ALTER TABLE** Table_name **MODIFY** Column_name new_datatype;

   **Example:**
   ALTER TABLE customer MODIFY mail varchar(20);

## 4. Drop:

" IT IS USED TO REMOVE THE TABLE FROM THE DATABASE "

*Syntax To Drop a Table:*

**DROP TABLE** Table_name;

**EXAMPLE:**

DROP TABLE Customer;

## 5. Truncate:

" IT IS USED TO REMOVE ALL THE RECORDS FROM THE TABLE PREMANENTLY "

*Syntax To Truncate a Table:*

**TRUNCATE TABLE** TABLE_NAME;

**Example:**

TRUNCATE TABLE Customer;

***NOTE:***

In Oracle Database drop objects are get stored in recyclebin;

```
DROP TABLE Sample;

SELECT * FROM RECYCLEBIN;
```

Statement Output | Query... | SQL | All Rows Fetched: 1 in 0 seconds

| | OBJECT_NAME | ORIGINAL_NAME | OPERATION | TYPE | TS_NAME | CREATETIME | DROPTIME | DROPSCN | PARTITION_NAM |
|---|---|---|---|---|---|---|---|---|---|
| 1 | BIN$0mdFHyaGRm+TLTq1sNgGJQ==$0 | SAMPLE | DROP | TABLE | USERS | 2024-05-24:18:47:54 | 2024-05-28:16:17:36 | 285194 | (null) |

To **Restore** table **Flashback** Command is there

Example: FLASHBACK TABLE Sample to before drop;

To Drop table permanently use '**PURGE'**

Example: DROP TABLE SAMPLE PURGE;