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Title: Create a database with appropriate constraints using DDL and populate/modify it with the help of DML.

Description:

Data Definition Language (DDL) actually of the SQL commands that can be used to define the database schema. It simply deals with descriptions of the database schema and is used to create and modify the structure of database objects in the database.

Data Manipulation Language (DML) The SQL commands that deals with the manipulation of data present in the database belong to DML or Data Manipulation Language and this includes most of the SQL commands.

Screenshots/Output:

1) **Create :** create database or its objects (table, views, index, function)

Syntax: CREATE TABLE table_name(colum1 datatype, column2 datatype,.....);

```
mysql> CREATE DATABASE donation;
Query OK, 1 row affected (0.10 sec)

mysql> use donation;
Database changed
mysql> CREATE TABLE ngo(
->     ngo_name VARCHAR(100),
->     ngo_id VARCHAR(50) PRIMARY KEY,
->     ngo_email VARCHAR(50),
->     phone VARCHAR(20),
->     items_donated VARCHAR(50)
-> );
Query OK, 0 rows affected (0.10 sec)
```

2) **Drop :** Delete object from database

Syntax: DROP TABLE table_name;

```
mysql> DROP TABLE ngo;
Query OK, 0 rows affected (0.04 sec)
```

3) Truncate: Remove all records from table.

Syntax : **TRUNCATE TABLE** table_name;

```
mysql> TRUNCATE TABLE ngo;  
Query OK, 0 rows affected (0.07 sec)
```

4) Alter : Alter the structure of the database.

Type :

- **Add a Column:** Insert a new column into an existing table.
Syntax: **ALTER TABLE** table_name **ADD** column_name datatype;
- **Modify a Column:** Change the data type or properties of an existing column.
Syntax: **ALTER TABLE** table_name **MODIFY** column_name new_datatype;
- **Rename a Table:** Change the name of the entire table.
Syntax: **RENAME TABLE** old_table_name **TO** new_table_name;
- **Rearrange Columns:** Reorder the columns in a table.
Syntax: **ALTER TABLE** table_name **MODIFY** Column_name datatype **AFTER** another_column;
- **Change:** Change the name of an existing column.
Syntax: **ALTER TABLE** table_name **CHANGE** old_name new_name;

```
mysql> ALTER TABLE ngo ADD ngo_add VARCHAR  
-> (100);  
Query OK, 0 rows affected (0.03 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> ALTER TABLE ngo MODIFY phone VARCHAR(30);  
Query OK, 0 rows affected (0.02 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> ALTER TABLE ngo RENAME ngo_details;  
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> ALTER TABLE ngo_details ADD pin INT AFTER ngo_add;
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE ngo_details change phone ngo_phone VARCHAR(30);
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

5) Insert : Insert into table values.

Syntax : **INSERT INTO** table_name(column1 , column2,...)
VALUES(value1, value2,.....);

```
mysql> INSERT INTO ngo_details (ngo_name, ngo_id, ngo_email, ngo_phone, ngo_add, items_donated) VALUES
-> ('Smile Foundation', 'N001', 'smile@gmail.com', '0123456789', 'Pune, Maharashtra', 'Clothes = 50,
Food = 30'),
-> ('Aasha NGO', 'N002', 'aasha.30@gmail.com', '9876543210', 'Mumbai, Maharashtra', 'Food = 100, Boo
ks = 40'),
-> ('Hope Trust', 'N003', 'care@gmail.com', '1234567890', 'Nashik, Maharashtra', 'Books = 30, Toys =
20'),
-> ('Helping Hands', 'N004', 'Helping.hands@gmail.com', '0987654321', 'Nagpur, Maharashtra', 'Medici
nes = 20, Clothes = 50'),
-> ('Sankalp Foundation', 'N005', 'sankalp@gmail.com', '9871234560', 'Aurangabad, Maharashtra', 'Toy
s = 40, Food = 60');
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

6) Delete : Delete record from database table.

Syntax : **DELETE FROM** table_name **WHERE** condition;

```
mysql> DELETE FROM ngo_details WHERE ngo_id = 'N004';
Query OK, 1 row affected (0.01 sec)
```

7) Update : Update existing data within a table.

Syntax : **UPDATE TABLE** table_name **SET** column_name = value **WHERE** condition;

```
mysql> UPDATE ngo_details SET ngo_email = 'sankalp.001@gmail.com' WHERE ngo_id = 'N005';  
Query OK, 1 row affected (0.01 sec)  
Rows matched: 1  Changed: 1  Warnings: 0
```