SQL Queries: -

SQL is a structured query language. We use this language to create table, edit the data and modify our database. There are basically 5 types of commands in SQL that are mentioned below:

- Data Definition Language
- Data Manipulation Language
- Data Control Language
- Transaction Control Language
- Data Query Language

As the above commands are basic commands used in SQL. There are some more sub commands are there to manage the database.

So, now we will see the all Data definition language commands step by step:

1) Creating Database- Creating Database is the first step we ever do start with database management. The command to create the database is –
   Syntax ~ CREATE DATABASE database_name;
   Example ~ CREATE DATABASE ODA_employee;

2) Creating table – We use the keyword here "create"and "table".
   Syntax ~ CREATE TABLE ODA_employee(Name char, ID int, Department char);
   Output ~ The table is created.

3) Select command – this command is used to display the table or the rows and data you want to see.
   Syntax ~ SELECT * from ODA_employee;
   Output ~ As the table is still empty,it will display the result as shown above.

4) Insert Command ~ this command is used to insert the data into the table.
   Syntax ~ INSERT INTO ODA_employee VALUES ("Trupti Dattawade",101,"Machine Learning Engineer Trainee");
   Output~ as the data is inserted into the table successfully.

5) Drop Command ~ we use this command to delete the whole data from table but the structure will be the same like columns.

Examples/Practice –

- Selected the all rows from ODA_employee table.
  Query -   SELECT * FROM ODA_employee;

Output

Name	ID	Department
Trupti Dattawade	101	Machine Learning Engineer Trainee
Razan mujawar	102	Machine Learning Engineer Trainee
Rohit Patil	103	Machine Learning Engineer Trainee
Shreya Devarde	104	Machine Learning Engineer Trainee
Sanika Bhosale	105	Machine Learning Engineer Trainee

- Displaying only names :
  SELECT Name FROM ODA_employee;

Output

Name
Trupti Dattawade
Razan mujawar
Rohit Patil
Shreya Devarde
Sanika Bhosale

- Deleting column:
  ALTER TABLE ODA_employee DROP COLUMN ID;
  SELECT * FROM ODA_employee;

Output

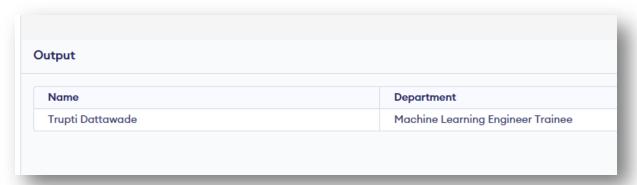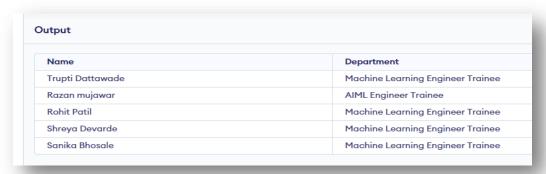| Name	Department
Trupti Dattawade	Machine Learning Engineer Trainee
Razan mujawar	Machine Learning Engineer Trainee
Rohit Patil	Machine Learning Engineer Trainee
Shreya Devarde	Machine Learning Engineer Trainee
Sanika Bhosale	Machine Learning Engineer Trainee

6) Where clause ~ we use this clause to filter the data. It's kind of validation.
   SELECT * FROM ODA_employee WHERE Name="Trupti Dattawade";

Output

Name	Department
Trupti Dattawade	Machine Learning Engineer Trainee

7) Update Data ~ We use this command to update the data.
   UPDATE ODA_employee SET Department="AIML Engineer Trainee" Where Name="Razan Mujawar";
   SELECT * FROM ODA_employee;

Output

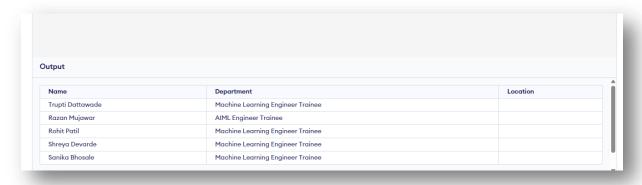| Name	Department
Trupti Dattawade	Machine Learning Engineer Trainee
Razan mujawar	AIML Engineer Trainee
Rohit Patil	Machine Learning Engineer Trainee
Shreya Devarde	Machine Learning Engineer Trainee
Sanika Bhosale	Machine Learning Engineer Trainee

8) Update values in data ~
   UPDATE ODA_employee SET Name="Razan Mujawar" Where Name="Razan mujawar";
   SELECT * FROM ODA_employee;
   (it converts small "m" to Capital "M")

Output

Name
Trupti Dattawade
Razan Mujawar
Rohit Patil
Shreya Devarde
Sanika Bhosale

9) Adding Column into table:
ALTER TABLE ODA_employee ADD COLUMN Location char;
SELECT * FROM ODA_employee;

Output

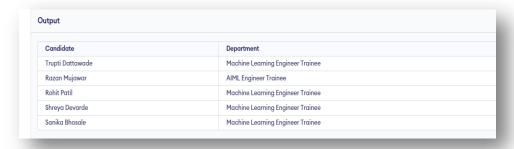| Name	Department	Location
Trupti Dattawade	Machine Learning Engineer Trainee	
Razan Mujawar	AIML Engineer Trainee	
Rohit Patil	Machine Learning Engineer Trainee	
Shreya Devarde	Machine Learning Engineer Trainee	
Sanika Bhosale	Machine Learning Engineer Trainee	

10) Modifying table:
  - ALTER TABLE ODA_employee RENAME COLUMN Name TO Candidate;
SELECT * FROM ODA_employee;

Output

Candidate
Trupti Dattawade
Razan Mujawar
Rohit Patil
Shreya Devarde
Sanika Bhosale

  - ALTER TABLE ODA_employee DROP COLUMN Location;
SELECT * FROM ODA_employee;

Output

Candidate	Department
Trupti Dattawade	Machine Learning Engineer Trainee
Razan Mujawar	AIML Engineer Trainee
Rohit Patil	Machine Learning Engineer Trainee
Shreya Devarde	Machine Learning Engineer Trainee
Sanika Bhosale	Machine Learning Engineer Trainee

  - ALTER TABLE ODA_employee RENAME TO ODA_interns; - this command is used to replace the table name.
    Command- SHOW TABLES;