**Akilesh K**

k.akilesh123@gmail.com

**Data engineering - Batch 1**

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# ASSESSMENT - SQL

## DDL and DML

Creating a database named paractice

```
mysql> create database practice;
Query OK, 1 row affected (0.21 sec)
```

Selecting the particular database for implementation

```
mysql> use practice;
Database changed
```

Creating a table named customers which defined attribute name and its datatype. We also declare customer ID as the primary key

```
mysql> create table customers(
    -> customerid int(10),
    -> customername varchar(30),
    -> contactname varchar(30),
    -> address varchar(50),
    -> city varchar(20),
    -> postalcode varchar(20),
    -> country varchar(30),
    -> PRIMARY KEY (customerid));
Query OK, 0 rows affected, 1 warning (0.22 sec)
```

Inserting the values into the customer table

```
mysql> INSERT INTO customers (customerid, customername, contactname, address, city, postalcode, country)
    -> VALUES
    -> (1, 'Alfreds', 'Maria Anders', '123 Main St', 'Berlin', '12345', 'Germany'),
    -> (2, 'Ana Trujillo', 'Trujillo', '456 Oak St', 'Mexico D.F', '54321', 'Mexico'),
    -> (3, 'Antonio Moreno', 'Antonio', '789 Pine St', 'Mexico D.F', '67890', 'Mexico'),
    -> (4, 'Thomas Hardys', 'Thomas ', '101 Cedar St', 'London', '98765', 'UK'),
    -> (5, 'Berglunds', 'Christina', '202 Elm St', 'Lulea', '13579', 'Sweden');
Query OK, 5 rows affected (0.08 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

Viewing the contents of the customers table

```
mysql> SELECT * FROM Customers;
+------------+---------------+-------------+-------------+------------+------------+---------+
| customerid | customername  | contactname | address     | city       | postalcode | country |
+------------+---------------+-------------+-------------+------------+------------+---------+
|          1 | Alfreds       | Maria Anders | 123 Main St | Berlin     | 12345      | Germany |
|          2 | Ana Trujillo  | Trujillo    | 456 Oak St  | Mexico D.F | 54321      | Mexico  |
|          3 | Antonio Moreno | Antonio    | 789 Pine St | Mexico D.F | 67890      | Mexico  |
|          4 | Thomas Hardys | Thomas      | 101 Cedar St | London    | 98765      | UK      |
|          5 | Berglunds     | Christina   | 202 Elm St  | Lulea      | 13579      | Sweden  |
+------------+---------------+-------------+-------------+------------+------------+---------+
5 rows in set (0.02 sec)
```

displaying the counties from customer table

```
mysql> SELECT Country FROM Customers;
+---------+
| Country |
+---------+
| Germany |
| Mexico  |
| Mexico  |
| UK      |
| Sweden  |
+---------+
5 rows in set (0.01 sec)
```

displaying unique counties from customer table

```
mysql> SELECT DISTINCT Country FROM Customers;
+---------+
| Country |
+---------+
| Germany |
| Mexico  |
| UK      |
| Sweden  |
+---------+
4 rows in set (0.02 sec)
```

Inserting another row in customer table

```
mysql> INSERT INTO customers (customerid, customername, contactname, address, city, postalcode, country)
    -> VALUES
    -> (6, 'ryan johnson', 'ryan', '303 Maple St', 'New York', '24680', 'USA');
Query OK, 1 row affected (0.01 sec)
```

Display customer table

```
mysql> SELECT * FROM Customers;
+------------+---------------+-------------+-------------+------------+------------+---------+
| customerid | customername  | contactname | address     | city       | postalcode | country |
+------------+---------------+-------------+-------------+------------+------------+---------+
|          1 | Alfreds       | Maria Anders | 123 Main St | Berlin     | 12345      | Germany |
|          2 | Ana Trujillo  | Trujillo    | 456 Oak St  | Mexico D.F | 54321      | Mexico  |
|          3 | Antonio Moreno | Antonio    | 789 Pine St | Mexico D.F | 67890      | Mexico  |
|          4 | Thomas Hardys | Thomas      | 101 Cedar St | London    | 98765      | UK      |
|          5 | Berglunds     | Christina   | 202 Elm St  | Lulea      | 13579      | Sweden  |
|          6 | ryan johnson  | ryan        | 303 Maple St | New York  | 24680      | USA     |
+------------+---------------+-------------+-------------+------------+------------+---------+
6 rows in set (0.00 sec)
```

Update city name whose customer id is 6

```
mysql> UPDATE customers SET city='Los Angeles' WHERE customerid=6;
Query OK, 1 row affected (0.03 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Display customer table

```
mysql> SELECT * FROM Customers;
+------------+---------------+-------------+-------------+-------------+------------+---------+
| customerid | customername  | contactname | address     | city        | postalcode | country |
+------------+---------------+-------------+-------------+-------------+------------+---------+
|          1 | Alfreds       | Maria Anders | 123 Main St | Berlin      | 12345      | Germany |
|          2 | Ana Trujillo  | Trujillo    | 456 Oak St  | Mexico D.F  | 54321      | Mexico  |
|          3 | Antonio Moreno | Antonio    | 789 Pine St | Mexico D.F  | 67890      | Mexico  |
|          4 | Thomas Hardys | Thomas      | 101 Cedar St | London     | 98765      | UK      |
|          5 | Berglunds     | Christina   | 202 Elm St  | Lulea       | 13579      | Sweden  |
|          6 | ryan johnson  | ryan        | 303 Maple St | Los Angeles | 24680      | USA     |
+------------+---------------+-------------+-------------+-------------+------------+---------+
6 rows in set (0.00 sec)
```

Delete customer whose customer id is 6

```
mysql> DELETE FROM customers WHERE customerid = 6;
Query OK, 1 row affected (0.01 sec)
```

Display customer table

```
mysql> SELECT * FROM Customers;
+------------+---------------+-------------+-------------+------------+------------+---------+
| customerid | customername  | contactname | address     | city       | postalcode | country |
+------------+---------------+-------------+-------------+------------+------------+---------+
|          1 | Alfreds       | Maria Anders | 123 Main St | Berlin     | 12345      | Germany |
|          2 | Ana Trujillo  | Trujillo    | 456 Oak St  | Mexico D.F | 54321      | Mexico  |
|          3 | Antonio Moreno | Antonio    | 789 Pine St | Mexico D.F | 67890      | Mexico  |
|          4 | Thomas Hardys | Thomas      | 101 Cedar St | London    | 98765      | UK      |
|          5 | Berglunds     | Christina   | 202 Elm St  | Lulea      | 13579      | Sweden  |
+------------+---------------+-------------+-------------+------------+------------+---------+
5 rows in set (0.00 sec)
```

Create employee table which defined attribute and datatypes. Declaring employee ID as the primary key

```
mysql> CREATE TABLE employee (
    ->     employeeid INT(10),
    ->     employeename VARCHAR(30),
    ->     salary DECIMAL(10, 2),
    ->     PRIMARY KEY (employeeid)
    -> );
Query OK, 0 rows affected, 1 warning (0.06 sec)
```

Inserting value in employee table

```
mysql> INSERT INTO employee (employeeid, employeename, salary)
    -> VALUES
    -> (101, 'Alan Doe', 50000.00),
    -> (102, 'Jack Smith', 60000.00),
    -> (103, 'will Johnson', 75000.00),
    -> (104, 'Chris Brown', 55000.00),
    -> (105, 'Rick White', 70000.00);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

Displaying the table present in the database

```
mysql> show tables;
+--------------------+
| Tables_in_practice |
+--------------------+
| customers          |
| employee           |
+--------------------+
2 rows in set (0.07 sec)
```

Displaying minimum salary from the employee table

```
mysql> SELECT MIN(salary) AS min_salary FROM employee;
+------------+
| min_salary |
+------------+
|   50000.00 |
+------------+
1 row in set (0.01 sec)
```

Displaying maximum salary from the employee table

```
mysql> SELECT MAX(salary) AS max_salary FROM employee;
+------------+
| max_salary |
+------------+
|   75000.00 |
+------------+
1 row in set (0.00 sec)
```

Displaying average salary of the employees from the employee table

```
mysql> SELECT AVG(salary) AS avg_salary FROM employee;
+--------------+
| avg_salary   |
+--------------+
| 62000.000000 |
+--------------+
1 row in set (0.00 sec)
```

Displaying salary summation of the employees from the employee table

```
mysql> SELECT SUM(salary) AS total_salary FROM employee;
+--------------+
| total_salary |
+--------------+
|    310000.00 |
+--------------+
1 row in set (0.00 sec)
```

Displaying number of employees from the employee table

```
mysql> SELECT COUNT(employeeid) AS employee_count FROM employee;
+----------------+
| employee_count |
+----------------+
|              5 |
+----------------+
1 row in set (0.05 sec)
```

Displaying salary in ascending order

```
mysql> SELECT salary FROM employee ORDER BY salary ASC;
+----------+
| salary   |
+----------+
| 50000.00 |
| 55000.00 |
| 60000.00 |
| 70000.00 |
| 75000.00 |
+----------+
5 rows in set (0.01 sec)
```

Displaying salary in descending order

```
mysql> SELECT salary FROM employee ORDER BY salary DESC;
+----------+
| salary   |
+----------+
| 75000.00 |
| 70000.00 |
| 60000.00 |
| 55000.00 |
| 50000.00 |
+----------+
5 rows in set (0.00 sec)
```

## TCL- COMMANDS

Create customer table

```
mysql> CREATE TABLE CUSTOMER (
    ->    ID INT NOT NULL,
    ->    NAME VARCHAR (20) NOT NULL,
    ->    AGE INT NOT NULL,
    ->    ADDRESS CHAR (25),
    ->    SALARY DECIMAL (18, 2),
    ->    PRIMARY KEY (ID)
    -> );
Query OK, 0 rows affected (0.05 sec)
```

Insert customer value

```
mysql> INSERT INTO CUSTOMER VALUES
    -> (1, 'Ramesh', 32, 'Ahmedabad', 2000.00),
    -> (2, 'Khilan', 25, 'Delhi', 1500.00),
    -> (3, 'Kaushik', 23, 'Kota', 2000.00),
    -> (4, 'Chaitali', 25, 'Mumbai', 6500.00),
    -> (5, 'Hardik', 27, 'Bhopal', 8500.00),
    -> (6, 'Komal', 22, 'Hyderabad', 4500.00),
    -> (7, 'Muffy', 24, 'Indore', 10000.00);
Query OK, 7 rows affected (0.01 sec)
Records: 7  Duplicates: 0  Warnings: 0
```

Display customer

```
mysql> select * from customer;
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
|  1 | Ramesh   |  32 | Ahmedabad |  2000.00 |
|  2 | Khilan   |  25 | Delhi     |  1500.00 |
|  3 | Kaushik  |  23 | Kota      |  2000.00 |
|  4 | Chaitali |  25 | Mumbai    |  6500.00 |
|  5 | Hardik   |  27 | Bhopal    |  8500.00 |
|  6 | Komal    |  22 | Hyderabad |  4500.00 |
|  7 | Muffy    |  24 | Indore    | 10000.00 |
+----+----------+-----+-----------+----------+
7 rows in set (0.00 sec)
```

Commit code

```
mysql> COMMIT;
Query OK, 0 rows affected (0.00 sec)
```

Display customer table

```
mysql> SELECT * FROM CUSTOMER;
+----+---------+-----+-----------+----------+
| ID | NAME    | AGE | ADDRESS   | SALARY   |
+----+---------+-----+-----------+----------+
|  1 | Ramesh  |  32 | Ahmedabad |  2000.00 |
|  3 | Kaushik |  23 | Kota      |  2000.00 |
|  5 | Hardik  |  27 | Bhopal    |  8500.00 |
|  6 | Komal   |  22 | Hyderabad |  4500.00 |
|  7 | Muffy   |  24 | Indore    | 10000.00 |
+----+---------+-----+-----------+----------+
5 rows in set (0.00 sec)
```

Delete customer

```
mysql> DELETE FROM CUSTOMER WHERE AGE = 25;
Query OK, 1 row affected (0.01 sec)
```

Rollback

```
mysql> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)
```

Display customer table

```
mysql> select * from customer;
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
|  1 | Ramesh   |  32 | Ahmedabad |  2000.00 |
|  2 | Khilan   |  25 | Delhi     |  1500.00 |
|  3 | Kaushik  |  23 | Kota      |  2000.00 |
|  4 | Chaitali |  25 | Mumbai    |  6500.00 |
|  5 | Hardik   |  27 | Bhopal    |  8500.00 |
|  6 | Komal    |  22 | Hyderabad |  4500.00 |
|  7 | Muffy    |  24 | Indore    | 10000.00 |
+----+----------+-----+-----------+----------+
7 rows in set (0.00 sec)
```

savepoint

```
mysql> SAVEPOINT SP1;
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM CUSTOMER WHERE ID=1;
Query OK, 1 row affected (0.01 sec)

mysql> SAVEPOINT SP2;
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM CUSTOMER WHERE ID=2;
Query OK, 1 row affected (0.01 sec)

mysql> SAVEPOINT SP3;
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM CUSTOMER WHERE ID=3;
Query OK, 1 row affected (0.01 sec)
```

## SET OPERATORS in SQL

```
mysql> CREATE TABLE t_employees(
    ->     ID INT,
    ->     Name VARCHAR(255),
    ->     Department VARCHAR(255),
    ->     Salary DECIMAL(10, 2),
    ->     Year_of_Experience INT
    -> );
Query OK, 0 rows affected (0.04 sec)
```

Insert value

```
mysql> INSERT INTO t_employees (ID, Name, Department, Salary, Year_of_Experience) VALUES
    -> (1, 'Aakash Singh', 'Development', 72000, 2),
    -> (2, 'Abhishek Pawar', 'Production', 45000, 1),
    -> (3, 'Pranav Deshmukh', 'HR', 59900, 3),
    -> (4, 'Shubham Mahale', 'Accounts', 57000, 2),
    -> (5, 'Sunil Kulkarni', 'Development', 87000, 3),
    -> (6, 'Bhushan Wagh', 'R&D', 75000, 2),
    -> (7, 'Paras Jaiswal', 'Marketing', 32000, 1);
Query OK, 7 rows affected (0.01 sec)
Records: 7  Duplicates: 0  Warnings: 0
```

Create employee

```
mysql> CREATE TABLE t2_employees(
    ->     ID INT,
    ->     Name VARCHAR(255),
    ->     Department VARCHAR(255),
    ->     Salary DECIMAL(10, 2),
    ->     Year_of_Experience INT
    -> );
Query OK, 0 rows affected (0.03 sec)
```

Insert values

```
mysql> INSERT INTO t2_employees(ID, Name, Department, Salary, Year_of_Experience) VALUES
    -> (1, 'Prashant Wagh', 'R&D', 49000, 1),
    -> (2, 'Abhishek Pawar', 'Production', 45000, 1),
    -> (3, 'Gautam Jain', 'Development', 56000, 4),
    -> (4, 'Shubham Mahale', 'Accounts', 57000, 2),
    -> (5, 'Rahul Thakur', 'Production', 76000, 4),
    -> (6, 'Bhushan Wagh', 'R&D', 75000, 2),
    -> (7, 'Anand Singh', 'Marketing', 28000, 1);
Query OK, 7 rows affected (0.02 sec)
Records: 7  Duplicates: 0  Warnings: 0
```

Create table

```
mysql> CREATE TABLE t_students(
    ->     ID INT,
    ->     Name VARCHAR(255),
    ->     Hometown VARCHAR(255),
    ->     Percentage DECIMAL(5, 2),
    ->     Favourite_Subject VARCHAR(255)
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> CREATE TABLE t2_students(
    ->     ID INT,
    ->     Name VARCHAR(255),
    ->     Hometown VARCHAR(255),
    ->     Percentage DECIMAL(5, 2),
    ->     Favourite_Subject VARCHAR(255)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

insertions

```
mysql> INSERT INTO t_students(ID, Name, Hometown, Percentage, Favourite_Subject) VALUES
    -> (1, 'Soniya Jain', 'Udaipur', 89, 'Physics'),
    -> (2, 'Harshada Sharma', 'Kanpur', 92, 'Chemistry'),
    -> (3, 'Anuja Rajput', 'Jaipur', 78, 'History'),
    -> (4, 'Pranali Singh', 'Nashik', 88, 'Geography'),
    -> (5, 'Renuka Deshmukh', 'Panipat', 90, 'Biology'),
    -> (6, 'Swati Kumari', 'Faridabad', 93, 'English'),
    -> (7, 'Prachi Jaiswal', 'Gurugram', 96, 'Hindi');
Query OK, 7 rows affected (0.01 sec)
Records: 7  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO t2_students(ID, Name, Hometown, Percentage, Favourite_Subject) VALUES
    -> (1, 'Soniya Jain', 'Udaipur', 89, 'Physics'),
    -> (2, 'Ishwari Dixit', 'Delhi', 86, 'Hindi'),
    -> (3, 'Anuja Rajput', 'Jaipur', 78, 'History'),
    -> (4, 'Pakhi Arora', 'Surat', 70, 'Sanskrit'),
    -> (5, 'Renuka Deshmukh', 'Panipat', 90, 'Biology'),
    -> (6, 'Jayshree Patel', 'Pune', 91, 'Maths'),
    -> (7, 'Prachi Jaiswal', 'Gurugram', 96, 'Hindi');
Query OK, 7 rows affected (0.02 sec)
Records: 7  Duplicates: 0  Warnings: 0
```

Display union of the two table

```
mysql> SELECT *FROM t_employees UNION SELECT *FROM t2_employees;
+------+-----------------+-------------+----------+--------------------+
| ID   | Name            | Department  | Salary   | Year_of_Experience |
+------+-----------------+-------------+----------+--------------------+
|    1 | Aakash Singh    | Development | 72000.00 |                  2 |
|    2 | Abhishek Pawar  | Production  | 45000.00 |                  1 |
|    3 | Pranav Deshmukh | HR          | 59900.00 |                  3 |
|    4 | Shubham Mahale  | Accounts    | 57000.00 |                  2 |
|    5 | Sunil Kulkarni  | Development | 87000.00 |                  3 |
|    6 | Bhushan Wagh    | R&D         | 75000.00 |                  2 |
|    7 | Paras Jaiswal   | Marketing   | 32000.00 |                  1 |
|    1 | Prashant Wagh   | R&D         | 49000.00 |                  1 |
|    3 | Gautam Jain     | Development | 56000.00 |                  4 |
|    5 | Rahul Thakur    | Production  | 76000.00 |                  4 |
|    7 | Anand Singh     | Marketing   | 28000.00 |                  1 |
+------+-----------------+-------------+----------+--------------------+
11 rows in set (0.01 sec)
```

Display union of the two table

```
mysql> SELECT *FROM t_students UNION SELECT *FROM t2_students;
+------+-----------------+-----------+------------+-------------------+
| ID   | Name            | Hometown  | Percentage | Favourite_Subject |
+------+-----------------+-----------+------------+-------------------+
|    1 | Soniya Jain     | Udaipur   |      89.00 | Physics           |
|    2 | Harshada Sharma | Kanpur    |      92.00 | Chemistry         |
|    3 | Anuja Rajput    | Jaipur    |      78.00 | History           |
|    4 | Pranali Singh   | Nashik    |      88.00 | Geography         |
|    5 | Renuka Deshmukh | Panipat   |      90.00 | Biology           |
|    6 | Swati Kumari    | Faridabad |      93.00 | English           |
|    7 | Prachi Jaiswal  | Gurugram  |      96.00 | Hindi             |
|    2 | Ishwari Dixit   | Delhi     |      86.00 | Hindi             |
|    4 | Pakhi Arora     | Surat     |      70.00 | Sanskrit          |
|    6 | Jayshree Patel  | Pune      |      91.00 | Maths             |
+------+-----------------+-----------+------------+-------------------+
10 rows in set (0.00 sec)
```

Display union ALL of the two table

```
mysql> SELECT *FROM t_employees UNION ALL SELECT *FROM t2_employees;
+------+----------------+-------------+----------+--------------------+
| ID   | Name           | Department  | Salary   | Year_of_Experience |
+------+----------------+-------------+----------+--------------------+
|    1 | Aakash Singh   | Development | 72000.00 |                  2 |
|    2 | Abhishek Pawar | Production  | 45000.00 |                  1 |
|    3 | Pranav Deshmukh| HR          | 59900.00 |                  3 |
|    4 | Shubham Mahale | Accounts    | 57000.00 |                  2 |
|    5 | Sunil Kulkarni | Development | 87000.00 |                  3 |
|    6 | Bhushan Wagh   | R&D         | 75000.00 |                  2 |
|    7 | Paras Jaiswal  | Marketing   | 32000.00 |                  1 |
|    1 | Prashant Wagh  | R&D         | 49000.00 |                  1 |
|    2 | Abhishek Pawar | Production  | 45000.00 |                  1 |
|    3 | Gautam Jain    | Development | 56000.00 |                  4 |
|    4 | Shubham Mahale | Accounts    | 57000.00 |                  2 |
|    5 | Rahul Thakur   | Production  | 76000.00 |                  4 |
|    6 | Bhushan Wagh   | R&D         | 75000.00 |                  2 |
|    7 | Anand Singh    | Marketing   | 28000.00 |                  1 |
+------+----------------+-------------+----------+--------------------+
14 rows in set (0.00 sec)
```

Display union ALL of the two table

```
mysql> SELECT *FROM t_students UNION ALL SELECT *FROM t2_students;
+------+----------------+-----------+------------+-------------------+
| ID   | Name           | Hometown  | Percentage | Favourite_Subject |
+------+----------------+-----------+------------+-------------------+
|    1 | Soniya Jain    | Udaipur   |      89.00 | Physics           |
|    2 | Harshada Sharma| Kanpur    |      92.00 | Chemistry         |
|    3 | Anuja Rajput   | Jaipur    |      78.00 | History           |
|    4 | Pranali Singh  | Nashik    |      88.00 | Geography         |
|    5 | Renuka Deshmukh| Panipat   |      90.00 | Biology           |
|    6 | Swati Kumari   | Faridabad |      93.00 | English           |
|    7 | Prachi Jaiswal | Gurugram  |      96.00 | Hindi             |
|    1 | Soniya Jain    | Udaipur   |      89.00 | Physics           |
|    2 | Ishwari Dixit  | Delhi     |      86.00 | Hindi             |
|    3 | Anuja Rajput   | Jaipur    |      78.00 | History           |
|    4 | Pakhi Arora    | Surat     |      70.00 | Sanskrit          |
|    5 | Renuka Deshmukh| Panipat   |      90.00 | Biology           |
|    6 | Jayshree Patel | Pune      |      91.00 | Maths             |
|    7 | Prachi Jaiswal | Gurugram  |      96.00 | Hindi             |
+------+----------------+-----------+------------+-------------------+
14 rows in set (0.00 sec)
```

Display Intersect of the two table

```
mysql> SELECT *FROM t_employees INTERSECT SELECT *FROM t2_employees;
+------+---------------+------------+----------+--------------------+
| ID   | Name          | Department | Salary   | Year_of_Experience |
+------+---------------+------------+----------+--------------------+
|    2 | Abhishek Pawar | Production | 45000.00 |                  1 |
|    4 | Shubham Mahale | Accounts   | 57000.00 |                  2 |
|    6 | Bhushan Wagh   | R&D        | 75000.00 |                  2 |
+------+---------------+------------+----------+--------------------+
3 rows in set (0.00 sec)
```

Display Intersect of the two table

```
mysql> SELECT *FROM t_students INTERSECT SELECT *FROM t2_students;
+------+-----------------+----------+------------+--------------------+
| ID   | Name            | Hometown | Percentage | Favourite_Subject  |
+------+-----------------+----------+------------+--------------------+
|    1 | Soniya Jain     | Udaipur  |      89.00 | Physics            |
|    3 | Anuja Rajput    | Jaipur   |      78.00 | History            |
|    5 | Renuka Deshmukh | Panipat  |      90.00 | Biology            |
|    7 | Prachi Jaiswal  | Gurugram |      96.00 | Hindi              |
+------+-----------------+----------+------------+--------------------+
4 rows in set (0.00 sec)
```

## MULTIPLE TABLE -SQL QUERIES

Creating adatabase names pet_adoption

```
mysql> CREATE DATABASE pet_adoption;
Query OK, 1 row affected (0.02 sec)
```

Choosing the database where we store our table

```
mysql> USE pet_adoption;
Database changed
```

Creating tables named animals

```
mysql> CREATE TABLE animals (
    ->     id INT NOT NULL,
    ->     name VARCHAR(50),
    ->     breed VARCHAR(50),
    ->     color VARCHAR(30),
    ->     gender VARCHAR(10),
    ->     status INT,
    ->     PRIMARY KEY (id)
    -> );
```

Creating a table named adoptions

```
mysql> CREATE TABLE adoptions (
    ->     animal_id INT NOT NULL,
    ->     name VARCHAR(40),
    ->     contact VARCHAR(50),
    ->     date TIMESTAMP,
    ->     FOREIGN KEY (animal_id) REFERENCES animals(id)
    -> );
Query OK, 0 rows affected (0.06 sec)
```

Displaying the table present in the database

```
mysql> SHOW TABLES;
+------------------------+
| Tables_in_pet_adoption |
+------------------------+
| adoptions              |
| animals                |
+------------------------+
2 rows in set (0.00 sec)
```

Displaying all the Columns from animals table

```
mysql> SHOW COLUMNS FROM animals;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| id     | int         | NO   | PRI | NULL    |       |
| name   | varchar(50) | YES  |     | NULL    |       |
| breed  | varchar(50) | YES  |     | NULL    |       |
| color  | varchar(30) | YES  |     | NULL    |       |
| gender | varchar(10) | YES  |     | NULL    |       |
| status | int         | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
6 rows in set (0.03 sec)
```

Displaying all the Columns from adoptions table

```
mysql> SHOW COLUMNS FROM adoptions;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| animal_id | int         | NO   | MUL | NULL    |       |
| name      | varchar(40) | YES  |     | NULL    |       |
| contact   | varchar(50) | YES  |     | NULL    |       |
| date      | timestamp   | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
4 rows in set (0.01 sec)
```

Insert values into animal table

```
mysql> INSERT INTO animals (id, name, breed, color, gender, status) VALUES
    -> (1, 'Bellyflop', 'Beagle', 'Brown', 'Male', 0),
    -> (2, 'Snowy', 'Husky', 'White', 'Female', 0),
    -> (3, 'Princess', 'Pomeranian', 'Black', 'Female', 0),
    -> (4, 'Cricket', 'Chihuahua', 'Brown', 'Male', 0),
    -> (5, 'Princess', 'Poodle', 'Purple', 'Female', 0),
    -> (6, 'Spot', 'Dalmatian', 'Black and White', 'Male', 0);
Query OK, 6 rows affected (0.01 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

Display animal table

```
mysql> SELECT * FROM animals;
+----+-----------+------------+-----------------+--------+--------+
| id | name      | breed      | color           | gender | status |
+----+-----------+------------+-----------------+--------+--------+
|  1 | Bellyflop | Beagle     | Brown           | Male   |      0 |
|  2 | Snowy     | Husky      | White           | Female |      0 |
|  3 | Princess  | Pomeranian | Black           | Female |      0 |
|  4 | Cricket   | Chihuahua  | Brown           | Male   |      0 |
|  5 | Princess  | Poodle     | Purple          | Female |      0 |
|  6 | Spot      | Dalmatian  | Black and White | Male   |      0 |
+----+-----------+------------+-----------------+--------+--------+
6 rows in set (0.00 sec)
```

Display the breed from animal table

```
mysql> SELECT breed FROM animals;
+------------+
| breed      |
+------------+
| Beagle     |
| Husky      |
| Pomeranian |
| Chihuahua  |
| Poodle     |
| Dalmatian  |
+------------+
6 rows in set (0.00 sec)
```

Display name of the animal where the gender is female

```
mysql> SELECT name FROM animals WHERE gender = 'Female';
+----------+
| name     |
+----------+
| Snowy    |
| Princess |
| Princess |
+----------+
3 rows in set (0.00 sec)
```

Display the ID of the animal where status of availability is 0

```
mysql> SELECT id FROM animals WHERE status = 0;
+----+
| id |
+----+
|  1 |
|  2 |
|  3 |
|  4 |
|  5 |
|  6 |
+----+
6 rows in set (0.00 sec)
```

Updating colour of the animal

```
mysql> UPDATE animals SET color = 'Brown' WHERE id = 5;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Display animal table

```
mysql> SELECT * FROM animals;
+----+-----------+------------+-----------------+--------+--------+
| id | name      | breed      | color           | gender | status |
+----+-----------+------------+-----------------+--------+--------+
|  1 | Bellyflop | Beagle     | Brown           | Male   |      0 |
|  2 | Snowy     | Husky      | White           | Female |      0 |
|  3 | Princess  | Pomeranian | Black           | Female |      0 |
|  4 | Cricket   | Chihuahua  | Brown           | Male   |      0 |
|  5 | Princess  | Poodle     | Brown           | Female |      0 |
|  6 | Spot      | Dalmatian  | Black and White | Male   |      0 |
+----+-----------+------------+-----------------+--------+--------+
6 rows in set (0.00 sec)
```

Update value of status and insert into adoption table

```
mysql> UPDATE animals SET status = 1 WHERE id = 5;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> INSERT INTO adoptions (animal_id, name, contact, date) VALUES (5, 'Patalie', 'poodlequeen@cockroa
chlabs.com', NOW());
Query OK, 1 row affected (0.05 sec)

mysql> UPDATE animals SET status = 1 WHERE id = 6;
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> INSERT INTO adoptions (animal_id, name, contact, date) VALUES (6, 'Ella', 'ellacrew@cockroachlabs
.com', NOW());
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM adoptions;
+-----------+---------+-------------------------------+---------------------+
| animal_id | name    | contact                       | date                |
+-----------+---------+-------------------------------+---------------------+
|         5 | Patalie | poodlequeen@cockroachlabs.com | 2024-01-19 14:10:31 |
|         6 | Ella    | ellacrew@cockroachlabs.com    | 2024-01-19 14:10:46 |
+-----------+---------+-------------------------------+---------------------+
2 rows in set (0.01 sec)
```

Display adoption in descensing

```
mysql> SELECT * FROM adoptions ORDER BY date DESC;
+-----------+---------+-------------------------------+---------------------+
| animal_id | name    | contact                       | date                |
+-----------+---------+-------------------------------+---------------------+
|         6 | Ella    | ellacrew@cockroachlabs.com    | 2024-01-19 14:10:46 |
|         5 | Patalie | poodlequeen@cockroachlabs.com | 2024-01-19 14:10:31 |
+-----------+---------+-------------------------------+---------------------+
2 rows in set (0.01 sec)
```

Display animal where status is 1

```
mysql> SELECT * FROM animals WHERE status = 1;
+----+----------+-----------+-----------------+--------+--------+
| id | name     | breed     | color           | gender | status |
+----+----------+-----------+-----------------+--------+--------+
|  5 | Princess | Poodle    | Brown           | Female |      1 |
|  6 | Spot     | Dalmatian | Black and White | Male   |      1 |
+----+----------+-----------+-----------------+--------+--------+
2 rows in set (0.00 sec)
```

Add new column called species

```
mysql> ALTER TABLE animals ADD COLUMN species VARCHAR(50);
Query OK, 0 rows affected (0.12 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Display column of the animal table

```
mysql> SHOW COLUMNS FROM animals;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| id      | int         | NO   | PRI | NULL    |       |
| name    | varchar(50) | YES  |     | NULL    |       |
| breed   | varchar(50) | YES  |     | NULL    |       |
| color   | varchar(30) | YES  |     | NULL    |       |
| gender  | varchar(10) | YES  |     | NULL    |       |
| status  | int         | YES  |     | NULL    |       |
| species | varchar(50) | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
7 rows in set (0.03 sec)
```

Update column species to dog

```
mysql> SET sql_safe_updates = FALSE;
Query OK, 0 rows affected (0.02 sec)

mysql> UPDATE animals SET species = 'Dog';
Query OK, 6 rows affected (0.01 sec)
Rows matched: 6  Changed: 6  Warnings: 0
```

Display animal table

```
mysql> SELECT * FROM animals;
+----+-----------+------------+-----------------+--------+--------+---------+
| id | name      | breed      | color           | gender | status | species |
+----+-----------+------------+-----------------+--------+--------+---------+
|  1 | Bellyflop | Beagle     | Brown           | Male   |      0 | Dog     |
|  2 | Snowy     | Husky      | White           | Female |      0 | Dog     |
|  3 | Princess  | Pomeranian | Black           | Female |      0 | Dog     |
|  4 | Cricket   | Chihuahua  | Brown           | Male   |      0 | Dog     |
|  5 | Princess  | Poodle     | Brown           | Female |      1 | Dog     |
|  6 | Spot      | Dalmatian  | Black and White | Male   |      1 | Dog     |
+----+-----------+------------+-----------------+--------+--------+---------+
6 rows in set (0.00 sec)
```

Insert value into animal table

```
mysql> INSERT INTO animals (id, name, species, breed, color, gender, status) VALUES
    -> (7, 'Meowmix', 'Cat', 'Munchkin', 'Yellow', 'Female', 0),
    -> (8, 'Ash', 'Cat', 'Persian', 'Gray', 'Female', 0),
    -> (9, 'Tiger', 'Cat', 'Bengal', 'Brown', 'Male', 0);
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM animals;
```

Display animal table

```
mysql> SELECT * FROM animals;
+----+-----------+------------+-----------------+--------+--------+---------+
| id | name      | breed      | color           | gender | status | species |
+----+-----------+------------+-----------------+--------+--------+---------+
|  1 | Bellyflop | Beagle     | Brown           | Male   |      0 | Dog     |
|  2 | Snowy     | Husky      | White           | Female |      0 | Dog     |
|  3 | Princess  | Pomeranian | Black           | Female |      0 | Dog     |
|  4 | Cricket   | Chihuahua  | Brown           | Male   |      0 | Dog     |
|  5 | Princess  | Poodle     | Brown           | Female |      1 | Dog     |
|  6 | Spot      | Dalmatian  | Black and White | Male   |      1 | Dog     |
|  7 | Meowmix   | Munchkin   | Yellow          | Female |      0 | Cat     |
|  8 | Ash       | Persian    | Gray            | Female |      0 | Cat     |
|  9 | Tiger     | Bengal     | Brown           | Male   |      0 | Cat     |
+----+-----------+------------+-----------------+--------+--------+---------+
9 rows in set (0.00 sec)
```

Create shelter table

```
mysql> CREATE TABLE shelters (
    ->     id INT,
    ->     name VARCHAR(50),
    ->     location VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.06 sec)
```

Alter animal table add column

```
mysql> ALTER TABLE animals ADD COLUMN shelter INTEGER;
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> UPDATE animals SET shelter = 1;
Query OK, 9 rows affected (0.01 sec)
Rows matched: 9  Changed: 9  Warnings: 0
```

Insert into shelter

```
mysql> INSERT INTO shelters (id, name, location) VALUES (102, 'Adopt A Buddy', 'Green Town');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO shelters (id, name, location) VALUES (103, 'Fluffy Animals', 'Blue Hills');
Query OK, 1 row affected (0.01 sec)
```

Insert into animal

```
mysql> INSERT INTO animals (id, name, shelter, species, breed, color, gender, status) VALUES
    -> (10, 'Snoops', 2, 'Dog', 'Beagle', 'Brown', 'Male', 0),
    -> (11, 'Salt', 2, 'Cat', 'Turkish Angora', 'White', 'Female', 0),
    -> (12, 'Fuzz', 3, 'Dog', 'Papillon', 'Gray', 'Male', 0);
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0
```

Create index

```
mysql> CREATE INDEX animal_shelter ON animals (shelter);
Query OK, 0 rows affected (0.10 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Using join to display animal in a particular shelter

```
mysql> SELECT * FROM adoptions JOIN animals ON adoptions.animal_id = animals.id WHERE animals.shelter = 1;
+-----------+---------+-------------------------------+---------------------+----+---------+-----------+-----------------+--------+--------+---------+---------+
| animal_id | name    | contact                       | date                | id | name    | breed     | color           | gender | status | species | shelter |
+-----------+---------+-------------------------------+---------------------+----+---------+-----------+-----------------+--------+--------+---------+---------+
|         5 | Patalie | poodlequeen@cockroachlabs.com | 2024-01-19 14:10:31 |  5 | Princess | Poodle    | Brown           | Female |      1 | Dog     |       1 |
|         6 | Ella    | ellacrew@cockroachlabs.com    | 2024-01-19 14:10:46 |  6 | Spot    | Dalmatian | Black and White | Male   |      1 | Dog     |       1 |
+-----------+---------+-------------------------------+---------------------+----+---------+-----------+-----------------+--------+--------+---------+---------+
2 rows in set (0.00 sec)

mysql>
```

## LOGICAL OPERATION OF SQL

Create new database

```
mysql> CREATE DATABASE xstream_db;
Query OK, 1 row affected (0.02 sec)

mysql> use xstream_db;
Database changed
```

Create employee table

```
mysql> CREATE TABLE employee (emp_id INT, emp_name VARCHAR(255),
    ->                                    emp_city VARCHAR(255),
    ->                                    emp_country VARCHAR(255),
    ->                                    PRIMARY KEY (emp_id));
Query OK, 0 rows affected (0.03 sec)
```

Insert into employee

```
mysql> INSERT INTO employee VALUES
    -> (101, 'Utkarsh Tripathi', 'Varanasi', 'India'),
    -> (102, 'Abhinav Singh', 'Varanasi', 'India'),
    -> (103, 'Utkarsh Raghuvanshi', 'Varanasi', 'India'),
    -> (104, 'Utkarsh Singh', 'Allahabad', 'India'),
    -> (105, 'Sudhanshu Yadav', 'Allahabad', 'India'),
    -> (106, 'Ashutosh Kumar', 'Patna', 'India');
Query OK, 6 rows affected (0.02 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

Display employee table

```
mysql> select * from employee;
+--------+---------------------+-----------+-------------+
| emp_id | emp_name            | emp_city  | emp_country |
+--------+---------------------+-----------+-------------+
|    101 | Utkarsh Tripathi    | Varanasi  | India       |
|    102 | Abhinav Singh       | Varanasi  | India       |
|    103 | Utkarsh Raghuvanshi | Varanasi  | India       |
|    104 | Utkarsh Singh       | Allahabad | India       |
|    105 | Sudhanshu Yadav     | Allahabad | India       |
|    106 | Ashutosh Kumar      | Patna     | India       |
+--------+---------------------+-----------+-------------+
6 rows in set (0.00 sec)
```

Using AND keyword

```
mysql> SELECT * FROM employee WHERE emp_city = 'Allahabad' AND emp_country = 'India';
+--------+----------------+-----------+-------------+
| emp_id | emp_name       | emp_city  | emp_country |
+--------+----------------+-----------+-------------+
|    104 | Utkarsh Singh  | Allahabad | India       |
|    105 | Sudhanshu Yadav | Allahabad | India      |
+--------+----------------+-----------+-------------+
2 rows in set (0.00 sec)
```

Using IN keyword

```
mysql> SELECT * FROM employee WHERE emp_city IN ('Allahabad', 'Patna');
+--------+----------------+-----------+-------------+
| emp_id | emp_name       | emp_city  | emp_country |
+--------+----------------+-----------+-------------+
|    104 | Utkarsh Singh  | Allahabad | India       |
|    105 | Sudhanshu Yadav | Allahabad | India      |
|    106 | Ashutosh Kumar | Patna     | India       |
+--------+----------------+-----------+-------------+
3 rows in set (0.00 sec)
```

Using NOT LIKE keyword

```
mysql> SELECT * FROM employee WHERE emp_city NOT LIKE 'A%';
+--------+----------------------+----------+-------------+
| emp_id | emp_name             | emp_city | emp_country |
+--------+----------------------+----------+-------------+
|    101 | Utkarsh Tripathi     | Varanasi | India       |
|    102 | Abhinav Singh        | Varanasi | India       |
|    103 | Utkarsh Raghuvanshi  | Varanasi | India       |
|    106 | Ashutosh Kumar       | Patna    | India       |
+--------+----------------------+----------+-------------+
4 rows in set (0.01 sec)
```

Using OR keyword

```
mysql> SELECT * FROM employee WHERE emp_city = 'Varanasi' OR emp_country = 'India';
+--------+--------------------+-----------+-------------+
| emp_id | emp_name           | emp_city  | emp_country |
+--------+--------------------+-----------+-------------+
|    101 | Utkarsh Tripathi   | Varanasi  | India       |
|    102 | Abhinav Singh      | Varanasi  | India       |
|    103 | Utkarsh Raghuvanshi| Varanasi  | India       |
|    104 | Utkarsh Singh      | Allahabad | India       |
|    105 | Sudhanshu Yadav    | Allahabad | India       |
|    106 | Ashutosh Kumar     | Patna     | India       |
+--------+--------------------+-----------+-------------+
6 rows in set (0.00 sec)
```

Using LIKE keyword

```
mysql> SELECT * FROM employee WHERE emp_city LIKE 'P%';
+--------+----------------+----------+-------------+
| emp_id | emp_name       | emp_city | emp_country |
+--------+----------------+----------+-------------+
|    106 | Ashutosh Kumar | Patna    | India       |
+--------+----------------+----------+-------------+
1 row in set (0.00 sec)
```

Using ANY keyword

```
mysql> SELECT * FROM employee WHERE emp_id = ANY
    ->                 (SELECT emp_id FROM employee WHERE emp_city = 'Varanasi');
+--------+--------------------+----------+-------------+
| emp_id | emp_name           | emp_city | emp_country |
+--------+--------------------+----------+-------------+
|    101 | Utkarsh Tripathi   | Varanasi | India       |
|    102 | Abhinav Singh      | Varanasi | India       |
|    103 | Utkarsh Raghuvanshi | Varanasi | India       |
+--------+--------------------+----------+-------------+
3 rows in set (0.01 sec)
```

Using EXISTS keyword

```
mysql> SELECT emp_name FROM employee WHERE EXISTS
    ->                 (SELECT emp_id FROM employee WHERE emp_city = 'Patna');
+--------------------+
| emp_name           |
+--------------------+
| Utkarsh Tripathi   |
| Abhinav Singh      |
| Utkarsh Raghuvanshi |
| Utkarsh Singh      |
| Sudhanshu Yadav    |
| Ashutosh Kumar     |
+--------------------+
6 rows in set (0.01 sec)
```

Using SOME keyword

```
mysql> SELECT * FROM employee WHERE emp_id < SOME
    ->                 (SELECT emp_id FROM employee WHERE emp_city = 'Patna');
+--------+--------------------+-----------+-------------+
| emp_id | emp_name           | emp_city  | emp_country |
+--------+--------------------+-----------+-------------+
|    101 | Utkarsh Tripathi   | Varanasi  | India       |
|    102 | Abhinav Singh      | Varanasi  | India       |
|    103 | Utkarsh Raghuvanshi | Varanasi  | India       |
|    104 | Utkarsh Singh      | Allahabad | India       |
|    105 | Sudhanshu Yadav    | Allahabad | India       |
+--------+--------------------+-----------+-------------+
5 rows in set (0.00 sec)

mysql>
```

Create student table

```
mysql> CREATE TABLE students (
    ->   ROLL_NO INT,
    ->   NAME VARCHAR(50),
    ->   ADDRESS VARCHAR(100),
    ->   PHONE VARCHAR(20),
    ->   AGE INT
    -> );
Query OK, 0 rows affected (0.03 sec)
```

Insert into student table

```
mysql> INSERT INTO students (ROLL_NO, NAME, ADDRESS, PHONE, AGE)
    -> VALUES
    ->   (1, 'Shubham Kumar', '123 Main Street, Bangalore', '9876543210', 23),
    ->   (2, 'Shreya Gupta', '456 Park Road, Mumbai', '9876543211', 23),
    ->   (3, 'Naveen Singh', '789 Market Lane, Delhi', '9876543212', 26),
    ->   (4, 'Aman Chopra', '246 Forest Avenue, Kolkata', '9876543213', 22),
    ->   (5, 'Aditya Patel', '7898 Ocean Drive, Chennai', '9876543214', 27),
    ->   (6, 'Avdeep Desai', '34 River View, Hyderabad', '9876543215', 24);
Query OK, 6 rows affected (0.01 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

Display student table

```
mysql> Select * from students;
+---------+--------------+---------------------------+------------+------+
| ROLL_NO | NAME         | ADDRESS                   | PHONE      | AGE  |
+---------+--------------+---------------------------+------------+------+
|       1 | Shubham Kumar | 123 Main Street, Bangalore | 9876543210 |   23 |
|       2 | Shreya Gupta  | 456 Park Road, Mumbai      | 9876543211 |   23 |
|       3 | Naveen Singh  | 789 Market Lane, Delhi     | 9876543212 |   26 |
|       4 | Aman Chopra   | 246 Forest Avenue, Kolkata | 9876543213 |   22 |
|       5 | Aditya Patel  | 7898 Ocean Drive, Chennai  | 9876543214 |   27 |
|       6 | Avdeep Desai  | 34 River View, Hyderabad   | 9876543215 |   24 |
+---------+--------------+---------------------------+------------+------+
6 rows in set (0.00 sec)
```

Display distinct student name

```
mysql> SELECT DISTINCT NAME FROM Students;
+---------------+
| NAME          |
+---------------+
| Shubham Kumar |
| Shreya Gupta  |
| Naveen Singh  |
| Aman Chopra   |
| Aditya Patel  |
| Avdeep Desai  |
+---------------+
6 rows in set (0.00 sec)
```

Display student

```
mysql> SELECT DISTINCT * FROM students;
+---------+---------------+---------------------------+------------+------+
| ROLL_NO | NAME          | ADDRESS                   | PHONE      | AGE  |
+---------+---------------+---------------------------+------------+------+
|       1 | Shubham Kumar | 123 Main Street, Bangalore | 9876543210 |   23 |
|       2 | Shreya Gupta  | 456 Park Road, Mumbai      | 9876543211 |   23 |
|       3 | Naveen Singh  | 789 Market Lane, Delhi     | 9876543212 |   26 |
|       4 | Aman Chopra   | 246 Forest Avenue, Kolkata | 9876543213 |   22 |
|       5 | Aditya Patel  | 7898 Ocean Drive, Chennai  | 9876543214 |   27 |
|       6 | Avdeep Desai  | 34 River View, Hyderabad   | 9876543215 |   24 |
+---------+---------------+---------------------------+------------+------+
6 rows in set (0.01 sec)
```

Display roll no, age order by age

```
mysql> SELECT DISTINCT ROLL_NO, AGE
    -> FROM Students
    -> ORDER BY AGE;
+---------+------+
| ROLL_NO | AGE  |
+---------+------+
|       4 |   22 |
|       1 |   23 |
|       2 |   23 |
|       6 |   24 |
|       3 |   26 |
|       5 |   27 |
+---------+------+
6 rows in set (0.00 sec)
```

Display count of the student

```
mysql> SELECT COUNT(DISTINCT ROLL_NO)  FROM Students ;
+--------------------------+
| COUNT(DISTINCT ROLL_NO) |
+--------------------------+
|                        6 |
+--------------------------+
1 row in set (0.01 sec)
```