

SQL Queries

Problem Statement:

1. Create table Student with schema (roll_no, name, division, branch, city, marks)

```
mysql> create table student(Rollno int, name varchar(50), division char, branch  
varchar(20), city varchar(40), marks float);
```

Query OK, 0 rows affected (0.07 sec)

2. Insert 10 records to the table students

```
mysql> insert into student values(1, "Zulfa", "A", "Computer", "Pune", "100");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(2, "Alex", "B", "ENTC", "Mumbai", "70");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(3, "Amar", "D", "Mechanical", "Chennai", 80);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(4, "Raju", "C", "Civil", "Kolkata", 50);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(5, "Karan", "A", "Computer", "Bihar", 100);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(6, "Geeta", "B", "ENTC", "Guwahati", 95);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(7, "Priya", "D", "Computer", "Bangalore", 98);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into student values(8, "Riya", "A", "Computer", "Mysore", 97);
```

Query OK, 1 row affected (0.01 sec)

mysql> insert into student values(9, "Aditya", "B", "Mechanical", "Kerala", 91);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student values(10, "Akash", "C", "Civil", "Assam", 94);

Query OK, 1 row affected (0.01 sec)

3. List all the student names with their corresponding city

Ans:

mysql> select name, city from student;

```
+-----+-----+
| name  | city  |
+-----+-----+
| Zulfa | Pune  |
| Alex  | Mumbai |
| Amar  | Chennai |
| Raju  | Kolkata |
| Karan | Bihar  |
| Geeta | Guwahati |
| Priya | Bangalore |
| Riya  | Mysore  |
| Aditya | Kerala  |
| Akash | Assam   |
+-----+-----+
```

10 rows in set (0.00 sec)

4. List all the distinct names of the students

mysql> select distinct name from student;

```

+-----+
| name |
+-----+
| Zulfa |
| Alex |
| Amar |
| Raju |
| Karan |
| Geeta |
| Priya |
| Riya |
| Aditya |
| Akash |
+-----+

```

10 rows in set (0.00 sec)

5. List all the records of the students with all the attributes

mysql> select * from Student;

```

+-----+-----+-----+-----+-----+-----+
| Rollno | name | division | branch | city | marks |
+-----+-----+-----+-----+-----+-----+
| 1 | Zulfa | A | Computer | Pune | 100 |
| 2 | Alex | B | ENTC | Mumbai | 70 |
| 3 | Amar | D | Mechanical | Chennai | 80 |
| 4 | Raju | C | Civil | Kolkata | 50 |
| 5 | Karan | A | Computer | Bihar | 100 |
| 6 | Geeta | B | ENTC | Guwahati | 95 |
| 7 | Priya | D | Computer | Bangalore | 98 |
| 8 | Riya | A | Computer | Mysore | 97 |
| 9 | Aditya | B | Mechanical | Kerala | 91 |
| 10 | Akash | C | Civil | Assam | 94 |
+-----+-----+-----+-----+-----+-----+

```

10 rows in set (0.00 sec)

6. List all the students whose marks are greater than 75

```
mysql> select * from Student where marks> 75;
```

Rollno	name	division	branch	city	marks
1	Zulfa	A	Computer	Pune	100
3	Amar	D	Mechanical	Chennai	80
5	Karan	A	Computer	Bihar	100
6	Geeta	B	ENTC	Guwahati	95
7	Priya	D	Computer	Bangalore	98
8	Riya	A	Computer	Mysore	97
9	Aditya	B	Mechanical	Kerala	91
10	Akash	C	Civil	Assam	94

8 rows in set (0.00 sec)

7. List all the students whose name starts with the alphabet 'S'

```
mysql> select * from student where name like "S%";
```

Rollno	name	division	branch	city	marks
11	Shubham	B	Computer	Pune	55
12	Sara	A	IT	Peru	58

2 rows in set (0.00 sec)

8. List all the students whose marks are in the range of 50 to 60

mysql> select * from student where marks between 50 and 60;

```
+-----+-----+-----+-----+-----+-----+
| Rollno | name   | division | branch | city  | marks |
+-----+-----+-----+-----+-----+-----+
| 4 | Raju   | C        | Civil  | Kolkata | 50 |
| 11 | Shubham | B        | Computer | Pune   | 55 |
| 12 | Sara   | A        | IT     | Peru   | 58 |
+-----+-----+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

9. List all the students whose branch is 'computer and city is 'Pune'

mysql> select * from student where branch="Computer" and City="Pune";

```
+-----+-----+-----+-----+-----+-----+
| Rollno | name   | division | branch | city  | marks |
+-----+-----+-----+-----+-----+-----+
| 1 | Zulfa  | A        | Computer | Pune | 100 |
| 11 | Shubham | B        | Computer | Pune | 55 |
+-----+-----+-----+-----+-----+-----+
```

2 rows in set (0.00 sec)

10. Update the branch of a student to IT whose roll number is 9

mysql> update student set branch="IT" where rollno = 9;

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

11. Delete the student records whose division is 'BE'

mysql> delete from student where branch= "BE";

Query OK, 0 rows affected (0.00 sec)

12. Create another table TE_Students with Schema(roll_no, name)

```
mysql> create table TE_Student(Rollno int, name varchar(50));
```

Query OK, 0 rows affected (0.07 sec)

```
mysql> insert into TE_Student value (15, "Ram");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into TE_Student value (16, "Vikrant");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into TE_Student value (17, "Kunal");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into TE_Student value (18, "Krish");
```

Query OK, 1 row affected (0.01 sec)

13) List all the roll numbers unionly in the relations Student and TE_Students

```
mysql> select rollno from Student union Select rollno from TE_Student;
```

```
+-----+
```

```
| rollno |
```

```
+-----+
```

```
| 1 |
```

```
| 2 |
```

```
| 3 |
```

```
| 4 |
```

```
| 5 |
```

```
| 6 |
```

```
| 7 |
```

```
| 8 |
```

```
| 9 |
```

```
| 10 |
```

```
| 11 |
```

```
| 12 |
```

```
| 13 |
```

```
| 15 |
```

```
| 16 |
```

```
| 17 |
```

```
| 18 |
```

```
+-----+
```

```
17 rows in set (0.00 sec)
```

14. Display name of all the students belonging to relation Student in Upper case

```
mysql> select UPPER(name) from student;
```

```
+-----+
```

```
| UPPER(name) |
```

```
+-----+
```

```
| ZULFA      |
```

```
| ALEX       |
```

```
| AMAR       |
```

```
| RAJU       |
```

```
| KARAN      |
```

```
| GEETA      |
```

```
| PRIYA      |
```

```
| RIYA       |
```

```
| ADITYA     |
```

AKASH	
-------	--

SHUBHAM	
---------	--

SARA	
------	--

AMIR	
------	--

AMIR	
------	--

+-----+

14 rows in set (0.00 sec)

15. Display the binary and hex equivalent of marks for all the students belonging to Student relation

```
mysql> select binary marks from Student;
```

+-----+

binary marks	
--------------	--

+-----+

0x313030	
----------	--

0x3730	
--------	--

0x3830	
--------	--

0x3530	
--------	--

0x313030	
----------	--

0x3935	
--------	--

0x3938	
--------	--

0x3937	
--------	--

0x3931	
--------	--

0x3934	
--------	--

0x3535	
--------	--

0x3538	
--------	--

0x3732	
--------	--

0x3732	
--------	--

+-----+

14 rows in set, 1 warning (0.00 sec)

mysql> select hex(marks) from Student;

+-----+

hex(marks)

+-----+

64	
----	--

46	
----	--

50	
----	--

32	
----	--

64	
----	--

5F	
----	--

62	
----	--

61	
----	--

5B	
----	--

5E	
----	--

37	
----	--

3A	
----	--

48	
----	--

48	
----	--

+-----+

14 rows in set (0.00 sec)