

## QUERY 1:

Create a Database School, and create a TABLE “students” with roll number, name(max 50 char), class(between 1 and 12), and marks.

```
@19akshansh ➔ /workspaces/IT-project/MySQL/queries (MySQL) $ sudo mysql
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 19
Server version: 8.0.44-0ubuntu0.24.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE DATABASE school;
Query OK, 1 row affected (0.01 sec)

mysql> USE school;
Database changed
mysql> CREATE TABLE students ( roll_no INT PRIMARY KEY, name VARCHAR(50), class INT CHECK (class BETWEEN 1 AND 12), marks FLOAT);
Query OK, 0 rows affected (0.03 sec)

mysql> █
```

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## QUERY 2:

Insert 3 students(records) in the table.

```
mysql> INSERT INTO students VALUES (1, 'Aman', 12, 85.5);
;
INSERT INTO students VALUES (3, 'Kunal', 11, 78.Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO students VALUES (2, 'Riya', 12, 90.0);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO students VALUES (3, 'Kunal', 11, 78.0);
Query OK, 1 row affected (0.00 sec)

mysql> █
```

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## QUERY 3:

Display all Records in the table.

```
mysql> SELECT * FROM students;
+-----+-----+-----+-----+
| roll_no | name   | class  | marks |
+-----+-----+-----+-----+
|      1 | Aman  |    12 |  85.5 |
|      2 | Riya  |    12 |    90 |
|      3 | Kunal |    11 |    78 |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

## **QUERY 4:**

Display Students(Record) but only of Class 12(condition).

```
mysql> SELECT * FROM students WHERE marks > 80;
+-----+-----+-----+
| roll_no | name | class | marks |
+-----+-----+-----+
|      1 | Aman |    12 |  85.5 |
|      2 | Riya |    12 |   90 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> █
```

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## **QUERY 5:**

Display Students that PASSED the exam (say passing marks were 80).

```
mysql> SELECT * FROM students WHERE marks > 80;
+-----+-----+-----+
| roll_no | name | class | marks |
+-----+-----+-----+
|      1 | Aman |    12 |  85.5 |
|      2 | Riya |    12 |   90 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> █
```

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## **QUERY 6:**

Kunal's Marks were found to be incorrect upon rechecking! Correct them to "88".

```
mysql> UPDATE students SET marks = 88 WHERE roll_no = 3;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> █
```

## **QUERY 7:**

Delete a Record.

```
mysql> DELETE FROM students WHERE roll_no = 1;
Query OK, 1 row affected (0.00 sec)
```

```
mysql> []
```

---

## **QUERY 8:**

Sorting(by marks, in descending order).

```
mysql> SELECT * FROM students ORDER BY marks DESC;
+-----+-----+-----+-----+
| roll_no | name   | class  | marks |
+-----+-----+-----+-----+
|      2 | Riya   |    12 |    90 |
|      3 | Kunal  |    11 |    88 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> []
```

---

## **QUERY 9:**

Count the number of Records in a Table.

```
mysql> SELECT COUNT(*) FROM students;
+-----+
| COUNT(*) |
+-----+
|      2 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> []
```

## **QUERY 10:**

Find Maximum Marks scored.

```
mysql> SELECT MAX(marks) FROM students;
+-----+
| MAX(marks) |
+-----+
|         90 |
+-----+
1 row in set (0.00 sec)

mysql> █
```

---

## **QUERY 11:**

Find Average Marks.

```
mysql> SELECT AVG(marks) FROM students;
+-----+
| AVG(marks) |
+-----+
|        89 |
+-----+
1 row in set (0.00 sec)

mysql> █
```

---

## **QUERY 12:**

Rename Column class -> grade.

```
mysql> ALTER TABLE students RENAME COLUMN class TO grade;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> █
```

## **QUERY 13:**

Add new Column (say “city”)

```
mysql> ALTER TABLE students ADD city VARCHAR(30);
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> |
```

---

## **QUERY 14:**

Delete that Column.

```
mysql> ALTER TABLE students DROP city;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> |
```

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## **QUERY 15:**

Distinct entries in a Column.

```
mysql> SELECT DISTINCT grade FROM students;
+-----+
| grade |
+-----+
|    12 |
|    11 |
+-----+
2 rows in set (0.00 sec)

mysql> |
```