

## 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, 78.0);
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> |
```

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## 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> |
```

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## 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> █
```