



# **Ramakrishna Mission Vidyamandira**

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Paper: CMSA CC 7 Practical

<b>Krishnendu Das</b>
Class Roll Number: 302
Registration Number: A04-1112-0173-21
B.Sc.
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Enter password: \*\*\*\*\*  
Welcome to the MySQL monitor.

mysql> **show databases;**

```
+-----+
| Database          |
+-----+
| information_schema |
| mysql              |
| performance_schema |
| sakila              |
| sys                 |
| world               |
+-----+
6 rows in set (0.11 sec)
```

mysql> **create database students;**  
Query OK, 1 row affected (0.07 sec)

mysql> **use students;**  
Database changed

mysql> **create table stud(name varchar(40),roll int(5) primary key,gender  
varchar(1) not null,d\_o\_b date);**  
Query OK, 0 rows affected, 1 warning (0.28 sec)

mysql> **show tables;**

```
+-----+
| Tables_in_students |
+-----+
| stud                 |
+-----+
1 row in set (0.00 sec)
```

mysql> **create table stud1(sid int(5) references stud,semester  
varchar(10),sgpa int(3));**  
Query OK, 0 rows affected, 2 warnings (0.30 sec)

```
mysql> show tables;
```

```
+-----+
| Tables_in_students |
+-----+
| stud                |
| stud1               |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> describe stud;
```

```
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name  | varchar(40)   | YES  |     | NULL     |       |
| roll  | int           | NO   | PRI | NULL     |       |
| gender| varchar(1)    | NO   |     | NULL     |       |
| d_o_b | date          | YES  |     | NULL     |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> desc stud1;
```

```
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| sid   | int           | YES  |     | NULL     |       |
| semester | varchar(10) | YES  |     | NULL     |       |
| sgpa  | int           | YES  |     | NULL     |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> insert into stud values('krishnendu',302,'F','2004-03-19');
Query OK, 1 row affected (0.07 sec)
```

```
mysql> SELECT * FROM STUD;
```

```
+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      |
+-----+-----+-----+-----+
| krishnendu | 302  | F      | 2004-03-19 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> insert into stud values('chetan c',354,'M','2003-03-13');
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into stud values('souresh',312,'M','2002-03-18');
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into stud values('debjyoti',314,'F','2002-01-17');
Query OK, 1 row affected (0.06 sec)
```

```
mysql> insert into stud values('animikh',296,'M','2002-11-18');
Query OK, 1 row affected (0.03 sec)
```

```
mysql> SELECT * FROM STUD;
```

name	roll	gender	d_o_b
animikh	296	M	2002-11-18
krishnendu	302	F	2004-03-19
souresh	312	M	2002-03-18
debjyoti	314	F	2002-01-17
chetan c	354	M	2003-03-13

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

```
mysql> insert into stud1 values(296,'fifth',99);
Query OK, 1 row affected (0.03 sec)
```

```
mysql> insert into stud1 values(214,'third',99);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into stud1 values(302,'first',89);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into stud1 values(306,'third',88);
Query OK, 1 row affected (0.06 sec)
```

```
mysql> insert into stud1 values(777,'fifth',95);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into stud1 values(218,'first',100);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> select * from stud1;
```

sid	semester	sgpa
296	fifth	99
214	third	99
302	first	89
306	third	88
777	fifth	95
218	first	100

```
+-----+-----+-----+
6 rows in set (0.00 sec)
```

***Q. Display Student ID of fifth semester students.***

```
mysql> select sid,semester from stud1 where semester='fifth';
```

sid	semester
296	fifth
777	fifth

```
+-----+-----+
2 rows in set (0.00 sec)
```

***Q. Display those records of students whose name starts with 'A'.***

```
mysql> select * from stud where name like 'A%';
```

name	roll	gender	d_o_b
animikh	296	M	2002-11-18

```
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

***Q. Display those records of students whose name ends with 'U'.***

```
mysql> select * from stud where name like '%u';
```

name	roll	gender	d_o_b
krishnendu	302	M	2004-03-19

```
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

**Q. Display those records of students who got SGPA more than 90.**

```
mysql> select * from stud1 where sgpa>90;
```

sid	semester	sgpa
296	fifth	99
214	third	99
777	fifth	95
218	first	100

4 rows in set (0.00 sec)

**Q. Display the records of female students.**

```
mysql> select * from stud where gender='f';
```

name	roll	gender	d_o_b
krishnendu	302	F	2004-03-19
debjyoti	314	F	2002-01-17

2 rows in set (0.00 sec)

**Q. Display year\_of\_birth of students.**

```
mysql> select substr(d_o_b,1,4) from stud;
```

substr(d_o_b,1,4)
2002
2004
2002
2002
2003

5 rows in set (0.00 sec)

**Q. Display year\_of\_birth of students in ascending order.**

```
mysql> select substr(d_o_b,1,4) from stud order by d_o_b;
+-----+
| substr(d_o_b,1,4) |
+-----+
| 2002              |
| 2002              |
| 2002              |
| 2003              |
| 2004              |
+-----+
5 rows in set (0.00 sec)
```

**Q. Display records of students according to date\_of\_birth.**

```
mysql> select * from stud order by d_o_b;
+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      |
+-----+-----+-----+-----+
| debjyoti  | 314  | F      | 2002-01-17 |
| souresh   | 312  | M      | 2002-03-18 |
| animikh   | 296  | M      | 2002-11-18 |
| chetan c  | 354  | M      | 2003-03-13 |
| krishnendu | 302  | F      | 2004-03-19 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

**Q. Display records of students according to increasing year\_of\_birth.**

```
mysql> select * from stud order by substr(d_o_b,1,4);
+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      |
+-----+-----+-----+-----+
| animikh   | 296  | M      | 2002-11-18 |
| souresh   | 312  | M      | 2002-03-18 |
| debjyoti  | 314  | F      | 2002-01-17 |
| chetan c  | 354  | M      | 2003-03-13 |
| krishnendu | 302  | F      | 2004-03-19 |
+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

**Q. Display records of students according to increasing month\_of\_birth.**

```
mysql> select * from stud order by substr(d_o_b,6,2);
```

name	roll	gender	d_o_b
debjyoti	314	F	2002-01-17
krishnendu	302	F	2004-03-19
souresh	312	M	2002-03-18
chetan c	354	M	2003-03-13
animikh	296	M	2002-11-18

5 rows in set (0.00 sec)

**Q. Display records of students according to increasing date\_of\_birth.**

```
mysql> select * from stud order by substr(d_o_b,9,2);
```

name	roll	gender	d_o_b
chetan c	354	M	2003-03-13
debjyoti	314	F	2002-01-17
animikh	296	M	2002-11-18
souresh	312	M	2002-03-18
krishnendu	302	F	2004-03-19

5 rows in set (0.00 sec)

**Q. Display records of students having age less than 20.**

```
mysql> select * from stud where (2022-substr(d_o_b,1,4))<20;
```

name	roll	gender	d_o_b
krishnendu	302	F	2004-03-19
chetan c	354	M	2003-03-13

2 rows in set (0.00 sec)



**Q. Display records of students according to gender.**

```
mysql> select * from stud order by gender;
```

```
+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      |
+-----+-----+-----+-----+
| krishnendu | 302  | F      | 2004-03-19 |
| debjyoti   | 314  | F      | 2002-01-17 |
| animikh    | 296  | M      | 2002-11-18 |
| souresh    | 312  | M      | 2002-03-18 |
| chetan c   | 354  | M      | 2003-03-13 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> select * from stud order by gender desc;
```

```
+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      |
+-----+-----+-----+-----+
| animikh    | 296  | M      | 2002-11-18 |
| souresh    | 312  | M      | 2002-03-18 |
| chetan c   | 354  | M      | 2003-03-13 |
| krishnendu | 302  | F      | 2004-03-19 |
| debjyoti   | 314  | F      | 2002-01-17 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

**Q. Add a new field named as 'Age'.**

```
mysql> alter table stud add age int not null;
```

Query OK, 0 rows affected (0.39 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> select * from stud;
```

```
+-----+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      | age |
+-----+-----+-----+-----+-----+
| animikh    | 296  | M      | 2002-11-18 | 0   |
| krishnendu | 302  | F      | 2004-03-19 | 0   |
| souresh    | 312  | M      | 2002-03-18 | 0   |
| debjyoti   | 314  | F      | 2002-01-17 | 0   |
| chetan c   | 354  | M      | 2003-03-13 | 0   |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

**Q. Set the values of the new field 'Age'.**

```
mysql> update stud set age=2022-substr(d_o_b,1,4);
```

Query OK, 5 rows affected (0.05 sec)

Rows matched: 5 Changed: 5 Warnings: 0

```
mysql> select * from stud;
```

name	roll	gender	d_o_b	age
animikh	296	M	2002-11-18	20
krishnendu	302	F	2004-03-19	18
souresh	312	M	2002-03-18	20
debjyoti	314	F	2002-01-17	20
chetan c	354	M	2003-03-13	19

**Q. Delete the new field 'Age'.**

```
mysql> alter table stud drop age;
```

Query OK, 0 rows affected (0.15 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> select * from stud;
```

name	roll	gender	d_o_b
animikh	296	M	2002-11-18
krishnendu	302	F	2004-03-19
souresh	312	M	2002-03-18
debjyoti	314	F	2002-01-17
chetan c	354	M	2003-03-13

5 rows in set (0.00 sec)

**Q. Add a new field named as 'Marks'.**

```
mysql> alter table stud add marks int(3) not null;
```

Query OK, 0 rows affected, 1 warning (0.18 sec)

Records: 0 Duplicates: 0 Warnings: 1

```
mysql> select * from stud;
```

name	roll	gender	d_o_b	marks
animikh	296	M	2002-11-18	0
krishnendu	302	F	2004-03-19	0
souresh	312	M	2002-03-18	0
debjyoti	314	F	2002-01-17	0
chetan c	354	M	2003-03-13	0

5 rows in set (0.00 sec)

```
mysql> update stud set marks=60 where roll=314;
```

Query OK, 1 row affected (0.06 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update stud set marks=66 where roll=296;
```

Query OK, 1 row affected (0.04 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update stud set marks=96 where roll=302;
```

Query OK, 1 row affected (0.03 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update stud set marks=78 where roll=312;
```

Query OK, 1 row affected (0.03 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update stud set marks=83 where roll=354;
```

Query OK, 1 row affected (0.03 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from stud;
```

name	roll	gender	d_o_b	marks
animikh	296	M	2002-11-18	66
krishnendu	302	F	2004-03-19	96
souresh	312	M	2002-03-18	78
debjyoti	314	F	2002-01-17	60
chetan c	354	M	2003-03-13	83

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

***Q. Display the maximum marks.***

```
mysql> select max(marks) from stud;
```

max(marks)
96

```
1 row in set (0.01 sec)
```

***Q. Display the minimum marks.***

```
mysql> select min(marks) from stud;
```

min(marks)
60

```
1 row in set (0.00 sec)
```

***Q. Display the average marks.***

```
mysql> select avg(marks) from stud;
+-----+
| avg(marks) |
+-----+
|      76.6000 |
+-----+
1 row in set (0.00 sec)
```

***Q. Display the total sum of marks.***

```
mysql> select sum(marks) from stud;
+-----+
| sum(marks) |
+-----+
|          383 |
+-----+
1 row in set (0.00 sec)
```

***Q. Display the number of records of marks.***

```
mysql> select count(marks) from stud;
+-----+
| count(marks) |
+-----+
|              5 |
+-----+
1 row in set (0.00 sec)
```

***Q. Display records of student having highest marks.***

```
mysql> select * from stud where marks=(select max(marks) from stud);
+-----+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      | marks |
+-----+-----+-----+-----+-----+
| krishnendu | 302  | F      | 2004-03-19 | 96    |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

**Q. Display records of student having lowest marks.**

```
mysql> select * from stud where marks=(select min(marks) from stud);
+-----+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      | marks |
+-----+-----+-----+-----+-----+
| debjyoti  | 314  | F      | 2002-01-17 | 60    |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

**Q. Display records of student having second highest marks.**

```
mysql> select * from stud where marks = (select max(marks) from stud where
marks<(select max(marks) from stud));
+-----+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      | marks |
+-----+-----+-----+-----+-----+
| chetan c  | 354  | M      | 2003-03-13 | 83    |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from stud;
+-----+-----+-----+-----+-----+
| name      | roll | gender | d_o_b      | marks |
+-----+-----+-----+-----+-----+
| animikh   | 296  | M      | 2002-11-18 | 66    |
| krishnendu | 302  | F      | 2004-03-19 | 96    |
| souresh   | 312  | M      | 2002-03-18 | 78    |
| debjyoti  | 314  | F      | 2002-01-17 | 60    |
| chetan c  | 354  | M      | 2003-03-13 | 83    |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

**Q. Display records of student having second lowest marks.**

```
mysql> select * from stud where marks = (select min(marks) from stud where marks>(select min(marks) from stud));
```

```
+-----+-----+-----+-----+-----+
| name   | roll | gender | d_o_b       | marks |
+-----+-----+-----+-----+-----+
| animikh | 296  | M      | 2002-11-18  | 66    |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

**Q. Display name of student having Longest name.**

```
.
mysql> select name from stud where length(name)=(select max(length(name))
from stud);
```

```
+-----+
| name      |
+-----+
| krishnendu |
+-----+
1 row in set (0.00 sec)
```

**Q. Display name along with name\_length, of student having Longest name.**

```
mysql> select name,max(length(name)) from stud where length(name)=(select
max(length(name)) from stud);
```

```
+-----+-----+
| name      | max(length(name)) |
+-----+-----+
| krishnendu | 10                |
+-----+-----+
1 row in set (0.00 sec)
```

**Q. Display the records of student whose third letter of name is 'i'.**

```
mysql> select * from stud where name like '__i%';
```

name	roll	gender	d_o_b	marks
animikh	296	M	2002-11-18	66
krishnendu	302	F	2004-03-19	96

```
2 rows in set (0.01 sec)
```

**Q. Display the records of student whose name starts with 'A' and scored marks in 50-70 range.**

```
mysql> select * from stud where (marks between 50 and 70 and gender='m')and name like 'a%';
```

name	roll	gender	d_o_b	marks
animikh	296	M	2002-11-18	66

```
1 row in set (0.00 sec)
```