

**Ramakrishna Mission Vidyamandira**

(An Autonomous College under University of Calcutta)

Computer Science (Honors) Semester III 2022

Paper: CMSA CC 7 Practical

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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 miniimum marks.***

mysql> select min(marks) from stud;

+------------+

| min(marks) |

+------------+

| 60 |

+------------+

1 row in set (0.00 sec)

***Q. Display the avarage 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)