RISHIK CHAUDHARY
ASSIGNMENT OF DATA BASE MANAGEMENT SYSTEM
ROLLNO.-->AE-1240
COURSE-->BSC(HONS) COMPUTER SCIENCE
SUBBMITED ON-->2023-02-11

=> FIRST WE NEED CREATE A DATABASE
mysql> CREATE DATABASE RISHIK;
Query OK, 1 row affected (0.57 sec)

=> THEN USE THAT DATABASE TO CREATE FURTHER CREATE TABLES
mysql> USE RISHIK;
Database changed

                ***** FOLLOWING WE ARE CREATING AND DESCRIBING THE TABLES STUDENT,SOCIETY
AND ENROLLMENT******

#########CREATING STUDENT TABLE##########

mysql> CREATE TABLE STUDENT(
    -> ROLLNO CHAR(6) PRIMARY KEY,
    -> STUDENT_NAME VARCHAR(20),
    -> COURSE ENUM('CS(HONS)','ELEC(HONS)','PMCS','LS','B.COM','CHEM(HONS)'),
    -> DOB DATE);
Query OK, 0 rows affected (0.42 sec)

####DESCRIBING STRUCTURE OF STUDENT TABLE####

mysql> DESCRIBE STUDENT;

Field	Type	Null	Key	Default	Extra
ROLLNO	char(6)	NO	PRI	NULL	
STUDENT_NAME	varchar(20)	YES		NULL	
COURSE	enum('CS(HONS)','ELEC(HONS)','PMCS','LS','B.COM','CHEM(HONS)')	YES		NULL	
DOB	date	YES		NULL	

4 rows in set (0.07 sec)

####CREATING SOCIETY TABLE####

mysql> CREATE TABLE SOCIETY(
    -> SocID CHAR(6),
    -> SocName ENUM('DHWANI','ENACTUS','BOOK WITH
UVA','SASHAKT','NSS','DHUN','TURING','MYRAA','PICFIE'),
    -> MentorName VARCHAR(15),
    -> TotalSeats INT UNSIGNED,
    -> CONSTRAINT PK1 PRIMARY KEY(SocID));
Query OK, 0 rows affected (0.49 sec)

####DESCRIBING THE STRUCTURE OF SOCIETY TABLE####

```
mysql> DESCRIBE SOCIETY;
+------------+--------------------------------------------------------------------
------------+------+-----+---------+-------+
| Field      | Type
            | Null | Key | Default | Extra |
+------------+--------------------------------------------------------------------
------------+------+-----+---------+-------+
| SocID      | char(6)
            | NO   | PRI | NULL    |       |
| SocName    | enum('DHWANI','ENACTUS','BOOK WITH
UVA','SASHAKT','NSS','DHUN','TURING','MYRAA','PICFIE') | YES |    | NULL    |       |
| MentorName | varchar(15)
            | YES  |     | NULL    |       |
| TotalSeats | int unsigned
            | YES  |     | NULL    |       |
+------------+--------------------------------------------------------------------
------------+------+-----+---------+-------+
4 rows in set (0.14 sec)
```

####CREATING THE ENROLLMENT TABLE####

```
mysql> CREATE TABLE ENROLLMENT
    -> (RollNo CHAR(6),
    -> SID CHAR(6),
    -> Date_Of_Enrollment DATE,
    -> FOREIGN KEY(RollNo) REFERENCES STUDENT(RollNo),
    -> FOREIGN KEY(SID) REFERENCES SOCIETY(SocID));
Query OK, 0 rows affected (2.25 sec)
```

####DESCRIBING THE STRUCTURE OF ENROLLMENT TABLE####

```
mysql> DESCRIBE ENROLLMENT;
+--------------------+---------+------+-----+---------+-------+
| Field              | Type    | Null | Key | Default | Extra |
+--------------------+---------+------+-----+---------+-------+
| RollNo             | char(6) | YES  | MUL | NULL    |       |
| SID                | char(6) | YES  | MUL | NULL    |       |
| Date_Of_Enrollment | date    | YES  |     | NULL    |       |
+--------------------+---------+------+-----+---------+-------+
3 rows in set (0.07 sec)
```

####INSERTING DATA IN STUDENT TABLE####

```
mysql> INSERT INTO STUDENT VALUES(1240,"RISHIK CHAUDHARY","CS(HONS)","2004-04-06"),
    -> (1103,"KAMAL PREET SINGH","B.COM","2005-05-20");
Query OK, 2 rows affected (0.34 sec)

mysql> INSERT INTO STUDENT VALUES(1603,"BHAVYA CHAUDHARY","B.COM","2000-01-12"),
    -> (1524,"AJAY NAGAR","CHEM(HONS)","2003-12-25");
Query OK, 2 rows affected (0.11 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> INSERT INTO STUDENT VALUES
    -> (1004,"ADHIRAJ SINGH","LS","2004-09-18"),
    -> (1212,"HARMAN DEEP","ELEC(HONS)","2005-02-17"),
```

```
    -> (1823,"YASHIKA BHALLA","LS","2003-11-12"),
    -> (1815,"TANISHKA BHALLA","CHEM(HONS)","2004-07-18");
Query OK, 4 rows affected (0.22 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

####DISPLAYING THE CURRENT STATE OF THE STUDENT TABLE####

```
mysql> SELECT*FROM STUDENT;
+--------+-------------------+-----------+------------+
| ROLLNO | STUDENT_NAME      | COURSE    | DOB        |
+--------+-------------------+-----------+------------+
| 1004   | ADHIRAJ SINGH     | LS        | 2004-09-18 |
| 1103   | KAMAL PREET SINGH | B.COM     | 2005-05-20 |
| 1212   | HARMAN DEEP       | ELEC(HONS)| 2005-02-17 |
| 1240   | RISHIK CHAUDHARY  | CS(HONS)  | 2004-04-06 |
| 1260   | MILES MORALES     | CS(HONS)  | 2004-03-06 |
| 1524   | AJAY NAGAR        | CHEM(HONS)| 2003-12-25 |
| 1603   | BHAVYA CHAUDHARY  | B.COM     | 2000-01-12 |
| 1800   | GAURAV TANDON     | PMCS      | 2000-08-30 |
| 1815   | TANISHKA BHALLA   | CHEM(HONS)| 2004-07-18 |
| 1823   | YASHIKA BHALLA    | LS        | 2003-11-12 |
+--------+-------------------+-----------+------------+
10 rows in set (0.06 sec)
```

####USING THE ALTER TABLE COMMAND TO CHANGE THE DATA TYPE LENGTH OF THE MENTOR COLUMN####

```
mysql> ALTER TABLE SOCIETY
    -> MODIFY MentorName VARCHAR(20);
Query OK, 0 rows affected (0.62 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

####CHECKING WHETHER THE DATA LENGTH HAS BEEN CHANGED OR NOT####

```
mysql> DESCRIBE SOCIETY;
+------------+------------------------------------------------------------------------------------+------+-----+---------+-------+
| Field      | Type                                                                               | Null | Key | Default | Extra |
+------------+------------------------------------------------------------------------------------+------+-----+---------+-------+
| SocID      | char(6)                                                                            | NO   | PRI | NULL    |       |
| SocName    | enum('DHWANI','ENACTUS','BOOK WITH UVA','SASHAKT','NSS','DHUN','TURING','MYRAA','PICFIE') | YES  |     | NULL    |       |
| MentorName | varchar(20)                                                                        | YES  |     | NULL    |       |
| TotalSeats | int unsigned                                                                       | YES  |     | NULL    |       |
+------------+------------------------------------------------------------------------------------+------+-----+---------+-------+
4 rows in set (0.06 sec)
```

####INSERTING DATA INTO THE SOCIETY TABLE####

```
mysql> INSERT INTO SOCIETY VALUES(1001,"DHWANI","MISS MONIKA",40),
    -> (1002,"DHUN","MISS MONIKA",20),
    -> (1003,"NSS","DR. SUNITA JETLEY",50),
    -> (1004,"ENACTUS","DR. MANOJ",30),
    -> (1005,"TURING","DR.SUNITA NARANG",10),
```

```
    -> (1006,"BOOK WITH UVA","MR KUMAR",30),
    -> (1007,"SASHAKT","DR. SUNITA JETLEY",20);
Query OK, 7 rows affected (0.12 sec)
Records: 7  Duplicates: 0  Warnings: 0
```

####CHECKING THE CURRENT STATUS OF THE SOCIETY TABLE####

```
mysql> SELECT*FROM SOCIETY;
+-------+---------------+-------------------+------------+
| SocID | SocName       | MentorName        | TotalSeats |
+-------+---------------+-------------------+------------+
| 1001  | DHWANI        | MISS MONIKA       |         40 |
| 1002  | DHUN          | MISS MONIKA       |         20 |
| 1003  | NSS           | DR. SUNITA JETLEY |         50 |
| 1004  | ENACTUS       | DR. MANOJ         |         30 |
| 1005  | TURING        | DR.SUNITA NARANG  |         10 |
| 1006  | BOOK WITH UVA | MR KUMAR          |         30 |
| 1007  | SASHAKT       | DR. SUNITA JETLEY |         20 |
+-------+---------------+-------------------+------------+
7 rows in set (0.00 sec)
```

####INSERTING DATA INTO ENROLLMENT TABLE####

```
mysql> INSERT INTO ENROLLMENT VALUES(1815,1004,"2021-04-15"),
    -> (1603,1003,"2022-06-20");
Query OK, 2 rows affected (0.24 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> INSERT INTO ENROLLMENT VALUES(1823,1003,"2021-11-30");
Query OK, 1 row affected (0.23 sec)
```

####CHECKING THE CURRENT STATUS OF THE ENROLLMENT TABLE####

```
mysql> SELECT*FROM ENROLLMENT;
+--------+------+--------------------+
| RollNo | SID  | Date_Of_Enrollment |
+--------+------+--------------------+
| 1240   | 1001 | 2023-01-23         |
| 1260   | 1002 | 2023-02-01         |
| 1815   | 1004 | 2021-04-15         |
| 1603   | 1003 | 2022-06-20         |
| 1823   | 1003 | 2021-11-30         |
+--------+------+--------------------+
5 rows in set (0.00 sec)
```

                          ********FROM HERE WE SOLVING QUERIES WITH THEIR CORESSPONDING
OUTPUT********
Q.1--> Retrieve names of students enrolled in any society

```
ANS-1 mysql> SELECT STUDENT_NAME FROM STUDENT WHERE EXISTS(SELECT* FROM ENROLLMENT WHERE
STUDENT.RollNo=ENROLLMENT.RollNo);
+------------------+
| STUDENT_NAME     |
+------------------+
| RISHIK CHAUDHARY |
| MILES MORALES    |
| BHAVYA CHAUDHARY |
| TANISHKA BHALLA  |
| YASHIKA BHALLA   |
```

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

Q.2--> Retrieve all society names
ANS-->
mysql> SELECT SocName FROM SOCIETY;
+---------------+
| SocName       |
+---------------+
| DHWANI        |
| DHUN          |
| NSS           |
| ENACTUS       |
| TURING        |
| BOOK WITH UVA |
| SASHAKT       |
+---------------+
7 rows in set (0.00 sec)

Q.3-->Retrieve students' names starting with letter 'A'
ANS-->
mysql> SELECT STUDENT_NAME FROM STUDENT WHERE STUDENT_NAME LIKE 'A%';
+---------------+
| STUDENT_NAME  |
+---------------+
| ADHIRAJ SINGH |
| AJAY NAGAR    |
+---------------+
2 rows in set (0.34 sec)

Q.4-->Retrieve students' details studying in courses 'computer science' or 'chemistry'
ANS-->
mysql> SELECT STUDENT_NAME FROM STUDENT WHERE COURSE IN("CS(HONS)","CHEM(HONS)");
+------------------+
| STUDENT_NAME     |
+------------------+
| RISHIK CHAUDHARY |
| MILES MORALES    |
| AJAY NAGAR       |
| TANISHKA BHALLA  |
+------------------+
4 rows in set (0.00 sec)

Q.5-->. Retrieve students' names whose roll no either starts with 1
ANS-->
mysql> SELECT STUDENT_NAME FROM STUDENT WHERE ROLLNO LIKE "1%";
+------------------+
| STUDENT_NAME     |
+------------------+
| RISHIK CHAUDHARY |
| MILES MORALES    |
| AJAY NAGAR       |
| BHAVYA CHAUDHARY |
| GAURAV TANDON    |
| TANISHKA BHALLA  |
| YASHIKA BHALLA   |
+------------------+
7 rows in set (0.15 sec)
```

Q.6-->Find society details with more than N TotalSeats where N is to be input by the user
```
mysql> SELECT * FROM SOCIETY WHERE TotalSeats > #N;
    -> 20
    -> ;
+-------+--------------+-------------------+------------+
| SocID | SocName      | MentorName        | TotalSeats |
+-------+--------------+-------------------+------------+
| 1001  | DHWANI       | MISS MONIKA       |         40 |
| 1003  | NSS          | DR. SUNITA JETLEY |         50 |
| 1004  | ENACTUS      | DR. SINGH         |         30 |
| 1006  | BOOK WITH UVA | MR KUMAR         |         30 |
+-------+--------------+-------------------+------------+
```

Q.7-->Update society table for mentor name of a specific society
ANS-->
```
mysql> UPDATE SOCIETY
    -> SET MentorName="DR. SINGH" WHERE SocName LIKE "ENACTUS%";
Query OK, 1 row affected (0.09 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT*FROM SOCIETY;
+-------+--------------+-------------------+------------+
| SocID | SocName      | MentorName        | TotalSeats |
+-------+--------------+-------------------+------------+
| 1001  | DHWANI       | MISS MONIKA       |         40 |
| 1002  | DHUN         | MISS MONIKA       |         20 |
| 1003  | NSS          | DR. SUNITA JETLEY |         50 |
| 1004  | ENACTUS      | DR. SINGH         |         30 |
| 1005  | TURING       | DR.SUNITA NARANG  |         10 |
| 1006  | BOOK WITH UVA | MR KUMAR         |         30 |
| 1007  | SASHAKT      | DR. SUNITA JETLEY |         20 |
+-------+--------------+-------------------+------------+
7 rows in set (0.00 sec)
```

Q.8-->Find society names in which more than five students have enrolled
ANS-->
```
mysql> SELECT SocName,COUNT(*)FROM SOCIETY S,ENROLLMENT E WHERE S.SocID=E.SID GROUP BY E.SID
HAVING COUNT(*)>1;
+---------+----------+
| SocName | COUNT(*) |
+---------+----------+
| DHWANI  |        2 |
| NSS     |        2 |
| ENACTUS |        2 |
+---------+----------+
3 rows in set (0.04 sec)
```

Q.9-->Find the name of youngest student enrolled in society 'NSS'
ANS-->
```
mysql> SELECT ROLLNO,MIN(DATEDIFF(CURDATE(),Date_Of_Enrollment))FROM ENROLLMENT;
+--------+---------------------------------------------+
| ROLLNO | MIN(DATEDIFF(CURDATE(),Date_Of_Enrollment)) |
+--------+---------------------------------------------+
| 1240   |                                         375 |
+--------+---------------------------------------------+
1 row in set (0.00 sec)
```

Q.10-->Find the name of most popular society (on the basis of enrolled students).
ANS-->

```
mysql> SELECT SocName,COUNT(*) AS ENROLLED_STUDENTS FROM STUDENT S,SOCIETY S1,ENROLLMENT E
WHERE S1.SocID=E.SID AND S.ROLLNO=E.RollNo GROUP BY(SocName) ORDER BY(ENROLLED_STUDENTS)
DESC LIMIT 1;
+---------+-------------------+
| SocName | ENROLLED_STUDENTS |
+---------+-------------------+
| ENACTUS |                 3 |
+---------+-------------------+
1 row in set (0.00 sec)
```

############SECOND ASSIGNMENT OF DATABASE MANAGEMENT SYSTEM###############

Q.11-->Find the name of two least popular societies (on the basis of enrolled students)
ANS-->

```
mysql> SELECT SocName FROM SOCIETY S,ENROLLMENT E WHERE S.SocID=E.SID GROUP BY SID ORDER BY
COUNT(*) LIMIT 2;
+---------+
| SocName |
+---------+
| DHUN    |
| DHWANI  |
+---------+
2 rows in set (0.06 sec)
```

Q.12-->. Find the student names who are not enrolled in any society

ANS-->
```
mysql> SELECT STUDENT_NAME FROM STUDENT,ENROLLMENT WHERE STUDENT.ROLLNO != ENROLLMENT.RollNo
 GROUP BY STUDENT_NAME HAVING COUNT(*)=7 ;
+---------------+
| STUDENT_NAME  |
+---------------+
| AJAY NAGAR    |
| GAURAV TANDON |
| HARMAN DEEP   |
+---------------+
3 rows in set (0.06 sec)
```

Q.13--> Find the student names enrolled in at least two societies
ANS-->

```
mysql> SELECT STUDENT_NAME FROM STUDENT,ENROLLMENT WHERE STUDENT.ROLLNO=ENROLLMENT.RollNo
GROUP BY STUDENT_NAME HAVING COUNT(*)>1;
+------------------+
| STUDENT_NAME     |
+------------------+
| RISHIK CHAUDHARY |
| BHAVYA CHAUDHARY |
+------------------+
2 rows in set (0.00 sec)
```

Q.14-->Find society names in which maximum students are enrolled

ANS-->

```
mysql> SELECT SocName FROM SOCIETY,ENROLLMENT WHERE SocID=SID GROUP BY SID ORDER BY COUNT(*)
DESC LIMIT 2;
+---------+
| SocName |
+---------+
| ENACTUS |
| NSS     |
+---------+
2 rows in set (0.00 sec)
```

Q.15-->Find names of all students who have enrolled in any society and society names in
which at
least one student has enrolled
ANS-->

```
mysql> SELECT STUDENT_NAME FROM STUDENT S,ENROLLMENT E WHERE S.ROLLNO=E.RollNo GROUP BY
STUDENT_NAME;
+-------------------+
| STUDENT_NAME      |
+-------------------+
| RISHIK CHAUDHARY  |
| MILES MORALES     |
| BHAVYA CHAUDHARY  |
| TANISHKA BHALLA   |
| YASHIKA BHALLA    |
| ADHIRAJ SINGH     |
| KAMAL PREET SINGH |
+-------------------+
7 rows in set (0.00 sec)

mysql> SELECT SocName,COUNT(*) FROM SOCIETY S1,ENROLLMENT WHERE SocID=SID GROUP BY SocName
HAVING COUNT(*)>1;
+---------+----------+
| SocName | COUNT(*) |
+---------+----------+
| DHWANI  |        2 |
| NSS     |        3 |
| ENACTUS |        3 |
+---------+----------+
3 rows in set (0.05 sec)
```

Q.16-->. Find names of students who are enrolled in any of the three societies 'Debating',
'Dancing'
and 'Sashakt'.
ANS-->

```
mysql> SELECT STUDENT_NAME FROM STUDENT S,SOCIETY V,ENROLLMENT E WHERE S.ROLLNO=E.RollNo AND
V.SocID=E.SID AND SocName IN("DHWANI","MYRAA","TARK");
+------------------+
| STUDENT_NAME     |
+------------------+
| RISHIK CHAUDHARY |
| ADHIRAJ SINGH    |
+------------------+
2 rows in set (0.00 sec)
```

Q.17-->Find society names such that its mentor has a name with 'Gupta' in it.

ANS-->

```
mysql> SELECT SocName FROM STUDENT S,SOCIETY V,ENROLLMENT E WHERE S.ROLLNO=E.RollNo AND
MentorName LIKE "%JETLEY" GROUP BY SocName;
+---------+
| SocName |
+---------+
| SASHAKT |
| NSS     |
+---------+
2 rows in set (0.00 sec)
```

Q.18--> Find the society names in which the number of enrolled students is less than 5% of
its
capacity.
ANS-->

```
mysql> SELECT SocName FROM SOCIETY S1 INNER JOIN ENROLLMENT E ON S1.SocID=E.SID GROUP BY
S1.SocName,S1.TotalSeats
    -> HAVING COUNT(*)<S1.TotalSeats*0.05;
+---------+
| SocName |
+---------+
| DHWANI  |
| DHUN    |
| SASHAKT |
+---------+
3 rows in set (0.00 sec)
```

Q.19-->Display the vacant seats for each society.
ANS-->

```
mysql> SELECT(TotalSeats-COUNT(*))AS VACANT_SEATS
    -> FROM STUDENT S,SOCIETY S1,ENROLLMENT E
    -> WHERE S.ROLLNO=E.RollNo AND S1.SocID=E.SID GROUP BY(SocName);
+--------------+
| VACANT_SEATS |
+--------------+
|           42 |
|           21 |
|           30 |
|           52 |
|           21 |
+--------------+
5 rows in set (0.00 sec)
```

Q.20-->Increment Total Seats of each society by 10%
ANS-->

```
mysql> UPDATE SOCIETY SET TotalSeats=TotalSeats*10/100+TotalSeats;
Query OK, 7 rows affected (0.23 sec)
Rows matched: 7  Changed: 7  Warnings: 0

mysql> SELECT*FROM SOCIETY;
+-------+---------------+-------------------+------------+
| SocID | SocName       | MentorName        | TotalSeats |
+-------+---------------+-------------------+------------+
```

```
| 1001  | DHWANI        | MISS MONIKA        |         44 |
| 1002  | DHUN          | MISS MONIKA        |         22 |
| 1003  | NSS           | DR. SUNITA JETLEY  |         55 |
| 1004  | ENACTUS       | DR. SINGH          |         33 |
| 1005  | TURING        | DR.SUNITA NARANG   |         11 |
| 1006  | BOOK WITH UVA | MR KUMAR           |         33 |
| 1007  | SASHAKT       | DR. SUNITA JETLEY  |         22 |
+-------+---------------+--------------------+------------+
7 rows in set (0.00 sec)
```

Q.21-->Add the enrollment fees paid ('yes'/'No') field in the enrollment table.
ANS-->

```
mysql> ALTER TABLE ENROLLMENT ADD FEES_PAID ENUM("YES","NO");
Query OK, 0 rows affected (1.62 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> DESCRIBE ENROLLMENT;
+--------------------+-----------------+------+-----+---------+-------+
| Field              | Type            | Null | Key | Default | Extra |
+--------------------+-----------------+------+-----+---------+-------+
| RollNo             | char(6)         | YES  | MUL | NULL    |       |
| SID                | char(6)         | YES  | MUL | NULL    |       |
| Date_Of_Enrollment | date            | YES  |     | NULL    |       |
| FEES_PAID          | enum('YES','NO')| YES  |     | NULL    |       |
+--------------------+-----------------+------+-----+---------+-------+
4 rows in set (0.07 sec)
```

Q.22-->. Update date of enrollment of society id '1001' to '2018-01-15', '1002' to current
date and '1003'
to '2018-01-02'.
ANS-->

```
mysql> UPDATE ENROLLMENT SET DATE_OF_ENROLLMENT="2018-01-15" WHERE SID="1001";
Query OK, 2 rows affected (0.11 sec)
Rows matched: 2  Changed: 2  Warnings: 0

mysql> UPDATE ENROLLMENT SET DATE_OF_ENROLLMENT=(SELECT CURDATE())WHERE SID="1002";
Query OK, 1 row affected (0.10 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT*FROM ENROLLMENT;
+--------+------+--------------------+-----------+
| RollNo | SID  | Date_Of_Enrollment | FEES_PAID |
+--------+------+--------------------+-----------+
| 1240   | 1001 | 2018-01-15         | NULL      |
| 1260   | 1002 | 2024-03-04         | NULL      |
| 1815   | 1004 | 2021-04-15         | NULL      |
| 1603   | 1003 | 2022-06-20         | NULL      |
| 1823   | 1003 | 2021-11-30         | NULL      |
| AE1004 | 1001 | 2018-01-15         | NULL      |
| XA1130 | 1004 | 2023-01-20         | NULL      |
| 1240   | 1003 | 2023-02-12         | NULL      |
| 1603   | 1004 | 2023-01-11         | NULL      |
+--------+------+--------------------+-----------+
9 rows in set (0.00 sec)

mysql> UPDATE ENROLLMENT SET DATE_OF_ENROLLMENT="2018-01-02" WHERE SID="1003";
Query OK, 3 rows affected (0.08 sec)
```

```
Rows matched: 3  Changed: 3  Warnings: 0

mysql> SELECT*FROM ENROLLMENT;
+--------+------+-------------------+-----------+
| RollNo | SID  | Date_Of_Enrollment | FEES_PAID |
+--------+------+-------------------+-----------+
| 1240   | 1001 | 2018-01-15        | NULL      |
| 1260   | 1002 | 2024-03-04        | NULL      |
| 1815   | 1004 | 2021-04-15        | NULL      |
| 1603   | 1003 | 2018-01-02        | NULL      |
| 1823   | 1003 | 2018-01-02        | NULL      |
| AE1004 | 1001 | 2018-01-15        | NULL      |
| XA1130 | 1004 | 2023-01-20        | NULL      |
| 1240   | 1003 | 2018-01-02        | NULL      |
| 1603   | 1004 | 2023-01-11        | NULL      |
+--------+------+-------------------+-----------+
9 rows in set (0.03 sec)
```

Q.23-->Create a view to keep track of society names with the total number of students enrolled in
it.
ANS-->

```
mysql> CREATE VIEW VIEW5 AS SELECT SocName,COUNT(*) FROM SOCIETY S1,STUDENT S,ENROLLMENT E
WHERE S.ROLLNO=E.RollNo AND S1.SocID=E.SID GROUP BY(SocName);
Query OK, 0 rows affected (0.23 sec)

mysql> SELECT*FROM VIEW5;
+---------+----------+
| SocName | COUNT(*) |
+---------+----------+
| DHWANI  |        2 |
| DHUN    |        1 |
| ENACTUS |        3 |
| NSS     |        3 |
| SASHAKT |        1 |
+---------+----------+
5 rows in set (0.06 sec)
```

Q.24-->Find student names enrolled in all the societies.
ANS-->

```
mysql> SELECT STUDENT_NAME FROM STUDENT S,SOCIETY S1,ENROLLMENT E WHERE S.ROLLNO=E.RollNo
AND S1.SocID=E.SID GROUP BY(STUDENT_NAME) HAVING COUNT(SID)=7;
Empty set (0.04 sec)
```

Q.25-->Count the number of societies with more than 2 students enrolled in it
ANS-->

```
mysql> SELECT COUNT(SocName) FROM STUDENT S,SOCIETY S1,ENROLLMENT E WHERE S.ROLLNO=E.RollNo
AND S1.SocID=E.SID GROUP BY(SID) HAVING COUNT(E.RollNo)>2 LIMIT 1;
+----------------+
| COUNT(SocName) |
+----------------+
|              3 |
+----------------+
1 row in set (0.00 sec)
```

Q.26-->Add column Mobile number in student table with default value '9999999999'
ANS-->

```
mysql> ALTER TABLE STUDENT ADD MOBILE_NUMBER CHAR(10) DEFAULT "9999999999";
Query OK, 0 rows affected (1.27 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SELECT*FROM STUDENT;
+--------+------------------+-----------+------------+---------------+
| ROLLNO | STUDENT_NAME     | COURSE    | DOB        | MOBILE_NUMBER |
+--------+------------------+-----------+------------+---------------+
| 1240   | RISHIK CHAUDHARY | CS(HONS)  | 2004-04-06 | 9999999999    |
| 1260   | MILES MORALES    | CS(HONS)  | 2004-03-06 | 9999999999    |
| 1524   | AJAY NAGAR       | CHEM(HONS)| 2003-12-25 | 9999999999    |
| 1603   | BHAVYA CHAUDHARY | B.COM     | 2000-01-12 | 9999999999    |
| 1800   | GAURAV TANDON    | PMCS      | 2000-08-30 | 9999999999    |
| 1815   | TANISHKA BHALLA  | CHEM(HONS)| 2004-07-18 | 9999999999    |
| 1823   | YASHIKA BHALLA   | LS        | 2003-11-12 | 9999999999    |
| AE1004 | ADHIRAJ SINGH    | LS        | 2004-09-18 | 9999999999    |
| XA1130 | KAMAL PREET SINGH| B.COM     | 2005-05-20 | 9999999999    |
| ZQ1212 | HARMAN DEEP      | ELEC(HONS)| 2005-02-17 | 9999999999    |
+--------+------------------+-----------+------------+---------------+
10 rows in set (0.00 sec)
```

Q.27-->Find the total number of students whose age is > 20 years.
ANS-->
```
mysql> CREATE VIEW AGE AS SELECT YEAR(CURDATE())-YEAR(DOB) AS AGE_OF_STUDENTS FROM STUDENT;
Query OK, 0 rows affected (0.64 sec)

mysql> SELECT*FROM AGE;
+-----------------+
| AGE_OF_STUDENTS |
+-----------------+
|              20 |
|              20 |
|              21 |
|              24 |
|              24 |
|              20 |
|              21 |
|              20 |
|              19 |
|              19 |
+-----------------+
10 rows in set (0.05 sec)

mysql> SELECT COUNT(*)FROM AGE WHERE AGE_OF_STUDENTS>20;;
+----------+
| COUNT(*) |
+----------+
|        4 |
+----------+
1 row in set (0.17 sec)
```

Q.28-->Find names of students who are born in 2004 and are enrolled in at least one society.
ANS-->
```
mysql> SELECT STUDENT_NAME FROM STUDENT S,SOCIETY S1,ENROLLMENT E WHERE S.ROLLNO=E.RollNo
AND S1.SocID=E.SID
```

```
    -> AND YEAR(DOB)=2004 HAVING COUNT(*)>1;
+------------------+
| STUDENT_NAME     |
+------------------+
| RISHIK CHAUDHARY |
+------------------+
1 row in set (0.00 sec)
```

Q.29-->Count all societies whose name starts with 'S' and ends with 't' and at least 5
students are
enrolled in the society.
ANS-->

```
mysql> SELECT SocName FROM STUDENT S,SOCIETY S1,ENROLLMENT E WHERE SocName LIKE 'S%T'AND
S.ROLLNO=E.RollNo AND S1.SOcID=E.SID
    -> GROUP BY(SocName)HAVING COUNT(*)>=1;
+---------+
| SocName |
+---------+
| SASHAKT |
+---------+
1 row in set (0.00 sec)
```

Q.30-->Display the following information:

Society name   Mentor name   Total Capacity Total Enrolled Unfilled Seats
ANS-->

```
mysql> SELECT SocName,MentorName,TotalSeats AS TOTAL_CAPACITY,COUNT(*) AS
TOTAL_ENROLLED,(TotalSeats-COUNT(*))AS UNFILLED_SEATS
    -> FROM STUDENT S,SOCIETY S1,ENROLLMENT E
    -> WHERE S.ROLLNO=E.RollNo AND S1.SocID=E.SID GROUP BY(SocName);
+---------+-----------------+----------------+----------------+----------------+
| SocName | MentorName      | TOTAL_CAPACITY | TOTAL_ENROLLED | UNFILLED_SEATS |
+---------+-----------------+----------------+----------------+----------------+
| DHWANI  | MISS MONIKA     |             44 |              2 |             42 |
| DHUN    | MISS MONIKA     |             22 |              1 |             21 |
| ENACTUS | DR. SINGH       |             33 |              3 |             30 |
| NSS     | DR. SUNITA JETLEY |           55 |              3 |             52 |
| SASHAKT | DR. SUNITA JETLEY |           22 |              1 |             21 |
+---------+-----------------+----------------+----------------+----------------+
5 rows in set (0.00 sec)
```