

RISHIK CHAUDHARY
 ASSIGNMENT OF DATA BASE MANAGEMENT SYSTEM
 ROLLNO.-->AE-1240
 COURSE-->BSC(HONS) COMPUTER SCIENCE
 SUBMITTED 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*****

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)

mysql> DESCRIBE STUDENT;

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

4 rows in set (0.07 sec)

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)

mysql> DESCRIBE SOCIETY;

Field	Type	Null	Key	Default	Extra
SocID	char(6)	NO	PRI		
SocName	enum('DHWANI', 'ENACTUS', 'BOOK WITH UVA', 'SASHAKT', 'NSS', 'DHUN', 'TURING', 'MYRAA', 'PICFIE')	YES			

MentorName	varchar(15)	YES	NULL
TotalSeats	int unsigned	YES	NULL

```

+-----+-----+-----+-----+
-----+-----+-----+-----+
4 rows in set (0.14 sec)

```

```

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)

```
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)

```

```

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

```
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)

```

```

mysql> ALTER TABLE SOCIETY
-> MODIFY MentorName VARCHAR(20);

```

Query OK, 0 rows affected (0.62 sec)

Records: 0 Duplicates: 0 Warnings: 0

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)

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

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)

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)

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 S.SocName,COUNT(E.SID)AS ENROLLMENT_COUNT
-> FROM ENROLLMENT E
-> JOIN SOCIETY S ON E.SID=S.SocId
-> GROUP BY ENROLLMENT_COUNT DESC
-> LIMIT 1;

```