

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*****

#####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)

####CTREATING 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 THE 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 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;
```