

Lab Assignment 3

Question:

Create a table based on following schema and do the atleast 10 entries in the relation.

- Student(RegNo, SName, DeptName, Subject, Marks, Contact_No, Email, City, Attendance)

After creating table create the view of the above created table as given below , whose department name is "CSE".

- S1(RegNo, SName, Subject, Marks, Attendance)
- S1(RegNo, Contact_No, Email, City)

Answer:

```
CREATE TABLE SSSStudent (  
    RegNo INT PRIMARY KEY,  
    SName VARCHAR(50),  
    DeptName VARCHAR(50),  
    Subject VARCHAR(50),  
    Marks INT,  
    Contact_No VARCHAR(15),  
    Email VARCHAR(100),  
    City VARCHAR(50),  
    Attendance INT  
);
```

```
INSERT INTO SSSStudent VALUES(1, 'Amit Sharma', 'CSE', 'Data Structures', 85, '9876543210',  
'amit.sharma@example.com', 'Delhi', 75);  
INSERT INTO SSSStudent VALUES(2, 'Priya Patel', 'CSE', 'Algorithms', 90, '8765432109',  
'priya.patel@example.com', 'Mumbai', 80);  
INSERT INTO SSSStudent VALUES(3, 'Raj Singh', 'CSE', 'Computer Networks', 78, '9654321098',  
'raj.singh@example.com', 'Delhi', 85);  
INSERT INTO SSSStudent VALUES(4, 'Sonia Mehta', 'ECE', 'Digital Systems', 88, '6543210987',  
'sonia.mehta@example.com', 'Chennai', 70);  
INSERT INTO SSSStudent VALUES(5, 'Vikram Yadav', 'CSE', 'Operating Systems', 92,  
'5432109876', 'vikram.yadav@example.com', 'Delhi', 90);  
INSERT INTO SSSStudent VALUES(6, 'Anita Kumar', 'IT', 'Database Systems', 82, '4321098765',  
'anita.kumar@example.com', 'Bangalore', 65);  
INSERT INTO SSSStudent VALUES(7, 'Ravi Sharma', 'CSE', 'Software Engineering', 75,  
'3210987654', 'ravi.sharma@example.com', 'Delhi', 80);  
INSERT INTO SSSStudent VALUES(8, 'Sneha Gupta', 'CSE', 'Web Technologies', 87,  
'2109876543', 'sneha.gupta@example.com', 'Mumbai', 70);  
INSERT INTO SSSStudent VALUES(9, 'Arjun Reddy', 'EEE', 'Power Systems', 79, '1098765432',  
'arjun.reddy@example.com', 'Hyderabad', 75);  
INSERT INTO SSSStudent VALUES(10, 'Kavita Jain', 'CSE', 'Artificial Intelligence', 95,  
'0987654321', 'kavita.jain@example.com', 'Delhi', 90);
```

```
SELECT * FROM SSSStudent order by RegNo;
```

REGNO	SNAME	DEPTNAME	SUBJECT	MARKS	CONTACT_NO	EMAIL	CITY	ATTENDANCE
1	Amit Sharma	CSE	Data Structures	85	9876543210	amit.sharma@example.com	Delhi	75
2	Priya Patel	CSE	Algorithms	90	8765432109	priya.patel@example.com	Mumbai	80
3	Raj Singh	CSE	Computer Networks	78	9654321098	raj.singh@example.com	Delhi	85
4	Sonia Mehta	ECE	Digital Systems	88	6543210987	sonia.mehta@example.com	Chennai	70
5	Vikram Yadav	CSE	Operating Systems	92	5432109876	vikram.yadav@example.com	Delhi	90
6	Anita Kumar	IT	Database Systems	82	4321098765	anita.kumar@example.com	Bangalore	65
7	Ravi Sharma	CSE	Software Engineering	75	3210987654	ravi.sharma@example.com	Delhi	80
8	Sneha Gupta	CSE	Web Technologies	87	2109876543	sneha.gupta@example.com	Mumbai	70
9	Arjun Reddy	EEE	Power Systems	79	1098765432	arjun.reddy@example.com	Hyderabad	75
10	Kavita Jain	CSE	Artificial Intelligence	95	0987654321	kavita.jain@example.com	Delhi	90

CREATE VIEW SS1 AS SELECT RegNo, SName, Subject, Marks, Attendance FROM SSSStudent
WHERE DeptName = 'CSE';
SELECT * FROM SS1;

REGNO	SNAME	SUBJECT	MARKS	ATTENDANCE
1	Amit Sharma	Data Structures	85	75
2	Priya Patel	Algorithms	90	80
3	Raj Singh	Computer Networks	78	85
5	Vikram Yadav	Operating Systems	92	90
7	Ravi Sharma	Software Engineering	75	80
8	Sneha Gupta	Web Technologies	87	70
10	Kavita Jain	Artificial Intelligence	95	90

CREATE VIEW S1_Contact_City AS SELECT RegNo, Contact_No, Email, City FROM SSSStudent
WHERE DeptName = 'CSE';
SELECT * FROM S1_Contact_City;

REGNO	CONTACT_NO	EMAIL	CITY
1	9876543210	amit.sharma@example.com	Delhi
2	8765432109	priya.patel@example.com	Mumbai
3	9654321098	raj.singh@example.com	Delhi
5	5432109876	vikram.yadav@example.com	Delhi
7	3210987654	ravi.sharma@example.com	Delhi
8	2109876543	sneha.gupta@example.com	Mumbai
10	0987654321	kavita.jain@example.com	Delhi

Question:

Perform the following queries on the tables just created :

1. Display the name of students whose attendance is highest.

- SELECT SName FROM SS1 WHERE Attendance = (SELECT MAX(Attendance) FROM SS1);

SNAME
Vikram Yadav
Kavita Jain

2. Display the name of students whose attendance is third highest.

```
➤ SELECT SName
FROM SS1
WHERE Attendance = (
    SELECT MIN(Attendance)
    FROM (
        SELECT DISTINCT Attendance
        FROM SS1
        ORDER BY Attendance DESC
    )
    WHERE ROWNUM <= 3
);
```

SNAME
Priya Patel
Ravi Sharma

3. Display the name of students whose attendance is third highest and city is "Delhi".

```
➤ SELECT SSSStudent.SName
FROM S1_Contact_City
JOIN SSSStudent
    ON S1_Contact_City.RegNo = SSSStudent.RegNo
WHERE SSSStudent.Attendance = (
    SELECT Attendance
    FROM (
        SELECT DISTINCT Attendance
        FROM SSSStudent
        WHERE City = 'Delhi' AND DeptName = 'CSE'
        ORDER BY Attendance DESC
    )
    WHERE ROWNUM = 3
)
AND S1_Contact_City.City = 'Delhi';
```

SNAME
Ravi Sharma

4. Display the name of students who got the same marks.

```
➤ SELECT SName
FROM SSSStudent
WHERE Marks IN (
    SELECT Marks
    FROM SSSStudent
    GROUP BY Marks
    HAVING COUNT(*) > 1
);
```

no data found

5. Display the name of students who have the same attendance.

```
➤ SELECT SName  
FROM SSSStudent  
WHERE Attendance IN (  
    SELECT Attendance  
    FROM SSSStudent  
    GROUP BY Attendance  
    HAVING COUNT(*) > 1  
);
```

SNAME
Sonia Mehta
Amit Sharma
Priya Patel
Vikram Yadav
Ravi Sharma
Sneha Gupta
Arjun Reddy
Kavita Jain