DBMSL ASSIGNMENT - 6

Roll No. : 31446

Cursors: (All types: Implicit, Explicit, Cursor FOR loop, Parameterised Cursor)

Write a PL/SQL block of code using parameterized Cursor that will merge the data available in the newly created table N_RollCall with the data available in the table O_RollCall. If the data in the first table already exists in the second table then that data should be skipped.

1) CREATION OF TABLES

```
CREATE TABLE O_RollCall (
      student_id INT PRIMARY KEY,
      student_name VARCHAR(100),
      attendance_date DATE
);
```

```
DESC O_RollCall;
```

Field	Type	Null	Key	Default	Extra
student_id	int(11)	NO	PRI	NULL	
student_name	varchar(100)	YES		NULL	
attendance_date	date	YES		NULL	

```
CREATE TABLE N_RollCall (
      student_id INT,
      student_name VARCHAR(100),
      attendance_date DATE
);
```

```
DESC N_RollCall;
```

Field	Type	Null	Key	Default	Extra
student_id	int(11)	YES		NULL	
student_name	varchar(100)	YES		NULL	
attendance_date	date	YES		NULL	

2) INSERT SAMPLE RECORDS

```
INSERT INTO O_RollCall VALUES
(1, 'Vijay', '2025-09-20'),
(2, 'Sita', '2025-09-20');
```

```
SELECT * FROM O_RollCall;
```

student_id	student_name	attendance_date
1	Vijay	2025-09-20
2	Sita	2025-09-20

```
INSERT INTO N_RollCall VALUES
(2, 'Sita', '2025-09-20'),
(3, 'Dev', '2025-09-20'),
(4, 'Yash', '2025-09-20');
```

```
SELECT * FROM N_RollCall;
+------------+--------------+-----------------+
| student_id | student_name | attendance_date |
+------------+--------------+-----------------+
|          2 | Sita         | 2025-09-20      |
|          3 | Dev          | 2025-09-20      |
|          4 | Yash         | 2025-09-20      |
+------------+--------------+-----------------+
3 rows in set (0.00 sec)
```

3) PROCEDURE WITH CURSOR

```
DELIMITER $$

CREATE PROCEDURE MergeRollCall()
BEGIN
    DECLARE v_student_id INT;
    DECLARE v_student_name VARCHAR(100);
    DECLARE v_attendance_date DATE;
    DECLARE done INT DEFAULT FALSE;

    DECLARE cur CURSOR FOR
    SELECT student_id, student_name, attendance_date FROM N_RollCall;

    DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;

    SET done = FALSE;

    OPEN cur;

    read_loop: LOOP
        FETCH cur INTO v_student_id, v_student_name, v_attendance_date;
        IF done THEN
            LEAVE read_loop;
        END IF;
        IF NOT EXISTS (
            SELECT 1 FROM O_RollCall
            WHERE student_id = v_student_id
              AND student_name = v_student_name
              AND attendance_date = v_attendance_date
        ) THEN
            INSERT INTO O_RollCall(student_id, student_name, attendance_date)
            VALUES(v_student_id, v_student_name, v_attendance_date);
        END IF;
    END LOOP;

    CLOSE cur;
END $$

DELIMITER ;
```

4) EXECUTE PROCEDURE

```
CALL MergeRollCall();

SELECT * FROM O_RollCall;
+------------+--------------+-----------------+
| student_id | student_name | attendance_date |
+------------+--------------+-----------------+
|          1 | Vijay        | 2025-09-20      |
|          2 | Sita         | 2025-09-20      |
|          3 | Dev          | 2025-09-20      |
|          4 | Yash         | 2025-09-20      |
+------------+--------------+-----------------+
4 rows in set (0.00 sec)
```