9. Problem Statement 9 (Cursors)
Consider a table Employee with schema as Employee (Emp_id, Emp_Name,Salary).
1. Write an explicit cursor to display records of all employees with salary greater than 50,000.
2. Write a PL/SQL block of code using Implicit Cursor that will display total number of tuples in Employee
table.
3. Write a PL/SQL block of code using Parameterized Cursor that will display salary of employee id entered by
the user.

```
mysql> create database sst;
mysql> use sst;
Database changed
mysql> CREATE TABLE Employee (
         Emp_id INT PRIMARY KEY,
         Emp_Name VARCHAR(100),
         Salary DECIMAL(10, 2)
     );
Query OK, 0 rows affected (0.05 sec)

mysql> INSERT INTO Employee (Emp_id, Emp_Name, Salary) VALUES (1, 'Rajesh Kumar',
60000.00);
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO Employee (Emp_id, Emp_Name, Salary) VALUES (2, 'Priya Sharma',
45000.00);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Employee (Emp_id, Emp_Name, Salary) VALUES (3, 'Amit Verma',
70000.00);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Employee (Emp_id, Emp_Name, Salary) VALUES (4, 'Suman Patel',
55000.00);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Employee (Emp_id, Emp_Name, Salary) VALUES (5, 'Neha Gupta',
80000.00);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Employee (Emp_id, Emp_Name, Salary) VALUES (6, 'Vikram Singh',
40000.00);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> COMMIT;

mysql> DELIMITER $$
mysql>
mysql> CREATE PROCEDURE GetEmployeesWithHighSalary()
     BEGIN
         DECLARE done INT DEFAULT 0;
         DECLARE emp_id INT;
         DECLARE emp_name VARCHAR(100);
         DECLARE emp_salary DECIMAL(10, 2);
```

```
         DECLARE emp_cursor CURSOR FOR
             SELECT Emp_id, Emp_Name, Salary
             FROM Employee
             WHERE Salary > 50000;

         DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;

         OPEN emp_cursor;

         read_loop: LOOP
             FETCH emp_cursor INTO emp_id, emp_name, emp_salary;

             IF done THEN
                 LEAVE read_loop;
             END IF;

             SELECT emp_id AS "Employee ID", emp_name AS "Employee Name",
emp_salary AS "Salary";
         END LOOP;

         CLOSE emp_cursor;
     END$$
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> DELIMITER ;
mysql> CALL GetEmployeesWithHighSalary();
+-------------+---------------+----------+
| Employee ID | Employee Name | Salary   |
+-------------+---------------+----------+
|        NULL | NULL          | 60000.00 |
+-------------+---------------+----------+
1 row in set (0.01 sec)

+-------------+---------------+----------+
| Employee ID | Employee Name | Salary   |
+-------------+---------------+----------+
|        NULL | NULL          | 70000.00 |
+-------------+---------------+----------+
1 row in set (0.01 sec)

+-------------+---------------+----------+
| Employee ID | Employee Name | Salary   |
+-------------+---------------+----------+
|        NULL | NULL          | 55000.00 |
+-------------+---------------+----------+
1 row in set (0.02 sec)

+-------------+---------------+----------+
| Employee ID | Employee Name | Salary   |
+-------------+---------------+----------+
|        NULL | NULL          | 80000.00 |
+-------------+---------------+----------+
1 row in set (0.02 sec)

mysql> DELIMITER $$
mysql>
mysql> CREATE PROCEDURE GetTotalEmployees()
     BEGIN
```

```
         DECLARE total_employees INT;

         SELECT COUNT(*) INTO total_employees
         FROM Employee;

         SELECT total_employees AS "Total Employees";
     END$$
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> DELIMITER ;
mysql> CALL GetTotalEmployees();
+-----------------+
| Total Employees |
+-----------------+
|               6 |
+-----------------+
1 row in set (0.01 sec)

Query OK, 0 rows affected (0.02 sec)

mysql> DELIMITER $$
mysql>
mysql> CREATE PROCEDURE GetEmployeeSalaryById(IN emp_id_input INT)
    -> BEGIN
    DECLARE emp_salary DECIMAL(10, 2);

         DECLARE emp_cursor CURSOR FOR
             SELECT Salary
             FROM Employee
             WHERE Emp_id = emp_id_input;

         DECLARE CONTINUE HANDLER FOR NOT FOUND SET emp_salary = NULL;

         OPEN emp_cursor;
         FETCH emp_cursor INTO emp_salary;

         IF emp_salary IS NULL THEN
             SELECT CONCAT('No employee found with ID ', emp_id_input) AS "Error";
         ELSE
             SELECT CONCAT('Salary of Employee ID ', emp_id_input, ' is: ',
emp_salary) AS "Employee Salary";
         END IF;

         CLOSE emp_cursor;
     END$$




| Employee Salary                         |
|-----------------------------------------|
| Salary of Employee ID 1 is: 60000.00    |


| Error                                    |
|------------------------------------------|
| No employee found with ID 999            |
```