Experiment 15: To understand the concepts of implicit and explicit cursor.

Objective: Students will be able to implement the concept of implicit and explicit cursor.

1. **Using implicit cursor update the salary by an increase of 10% for all the records in EMPLOYEES table, and finally display how many records have been updated. If no records exist display the message "No Change".**

```
DECLARE
    v_rows_updated NUMBER;
BEGIN
    UPDATE EMPLOYEES
    SET SALARY = SALARY * 1.10;

    v_rows_updated := SQL%ROWCOUNT;

    IF v_rows_updated > 0 THEN
        DBMS_OUTPUT.PUT_LINE(v_rows_updated || ' records updated.');
    ELSE
        DBMS_OUTPUT.PUT_LINE('No Change.');
    END IF;
END;
/
```

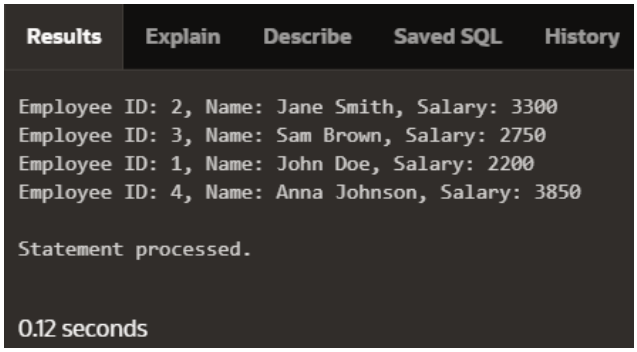
Results | Explain | Describe | Saved SQL | History

```
4 records updated.

1 row(s) updated.

0.01 seconds
```

2. **Using explicit cursor fetch the employee name, employee_id and salary of all the records from EMPLOYEES table.**
   INPUT:

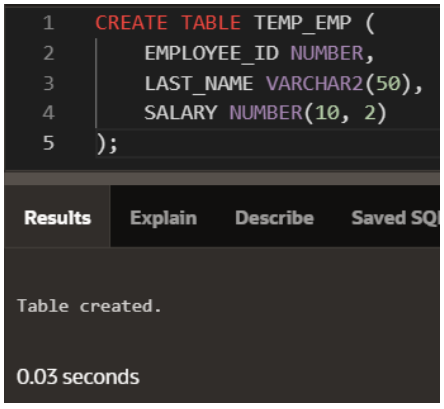
```
DECLARE
    CURSOR emp_cursor IS
        SELECT EMPLOYEE_ID, FIRST_NAME, LAST_NAME, SALARY FROM EMPLOYEES;

    v_employee_id EMPLOYEES.EMPLOYEE_ID%TYPE;
    v_first_name EMPLOYEES.FIRST_NAME%TYPE;
    v_last_name EMPLOYEES.LAST_NAME%TYPE;
    v_salary EMPLOYEES.SALARY%TYPE;
BEGIN
    OPEN emp_cursor;

    LOOP
        FETCH emp_cursor INTO v_employee_id, v_first_name, v_last_name, v_salary;

        EXIT WHEN emp_cursor%NOTFOUND;

        DBMS_OUTPUT.PUT_LINE('Employee ID: ' || v_employee_id ||
                             ', Name: ' || v_first_name || ' ' || v_last_name ||
                             ', Salary: ' || v_salary);
    END LOOP;

    CLOSE emp_cursor;
END;
/
```

OUTPUT:



3. **Using explicit cursor Insert the records from EMPLOYEES table for the columns employee_id, Last_Name and salary for those records whose salary exceeds 2500 into a new table TEMP_EMP.**

Creating TEMP_EMP table:



INPUT:

```
DECLARE
    CURSOR emp_cursor IS
        SELECT EMPLOYEE_ID, LAST_NAME, SALARY
        FROM EMPLOYEES
        WHERE SALARY > 2500;

    v_employee_id EMPLOYEES.EMPLOYEE_ID%TYPE;
    v_last_name EMPLOYEES.LAST_NAME%TYPE;
    v_salary EMPLOYEES.SALARY%TYPE;
BEGIN
    OPEN emp_cursor;

    LOOP
        FETCH emp_cursor INTO v_employee_id, v_last_name, v_salary;

        EXIT WHEN emp_cursor%NOTFOUND;

        INSERT INTO TEMP_EMP (EMPLOYEE_ID, LAST_NAME, SALARY)
        VALUES (v_employee_id, v_last_name, v_salary);

        DBMS_OUTPUT.PUT_LINE('Inserted Record - Employee ID: ' || v_employee_id ||
                             ', Last Name: ' || v_last_name ||
                             ', Salary: ' || v_salary);
    END LOOP;

    CLOSE emp_cursor;

    DBMS_OUTPUT.PUT_LINE('Records inserted into TEMP_EMP successfully.');
END;
/
```

OUTPUT:

```
1  SELECT * FROM TEMP_EMP;
```

Results | Explain | Describe | Saved SQL | History

EMPLOYEE_ID	LAST_NAME	SALARY
2	Smith	3300
3	Brown	2750
4	Johnson	3850

3 rows returned in 0.01 seconds Download