# ASSIGNMENT-9 DBMS LABORATORY



1. Take the help of implicit cursor to print the total number of rows deleted after a deletion operation performed on a table.

#### **SQL** Worksheet

```
1  declare
2  affected char(4);
3  begin
4  delete from emp
5  where empno=7566;
6  affected:=to_char(SQL%ROWCOUNT);
7  dbms_output.put_line('No of Lines affected ' || affected);
8  end;
9  /
Statement processed.
No of Lines affected 1
```

2. Create a table X that contains two attributes A (number (2)) and B(varchar2(25)). Now, create an explicit cursor that will help you to populate the table X with the value from DEPT table (Ref. Assignment No. - 2) where A is same as deptno and b is same as dname.

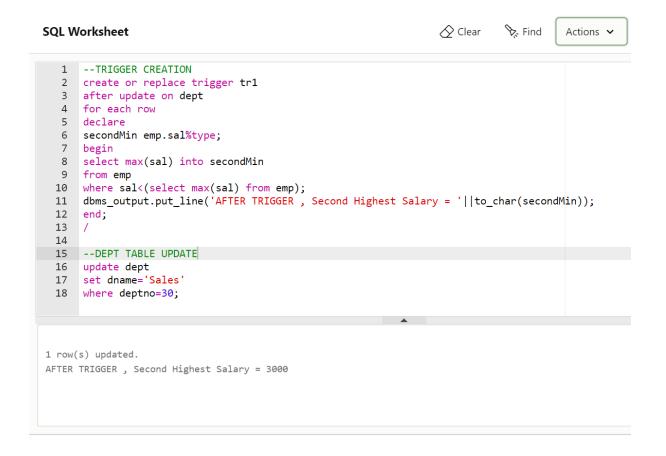
```
1 create table X(
 2 A number(2),
 3 B varchar2(25));
 4 declare
   cursor cur2 is
   select deptno,dname
    from dept;
   a_m dept.deptno%type;
9 b_m dept.dname%type;
10 begin
11 open cur2;
12 if cur2%isopen then
   delete from emp where empno=7934;
13
15
   fetch cur2 into a_m,b_m;
    exit when cur2%notfound;
17
    if cur2%found then
18 insert into x values(a_m,b_m);
19 end if;
20 end loop;
21 commit;
22 else
23 dbms_output.put_line('Unable to open cursor');
    end if;
25
    close cur2;
26
    end;
27
28
   select * from X;
```

А	В
10	Accounting
20	Research
30	Sales
40	Operations

3. Print the second highest salary of the EMP table (Ref. Assignment No. - 2) using an explicit cursor.

### **SQL** Worksheet cursor cur3 is select max(sal) from emp where sal<(select max(sal) from emp);</pre> 6 sal\_m emp.sal%type; begin 8 open cur3; 9 if cur3%isopen then 10 fetch cur3 into sal\_m; dbms\_output.put\_line('Second Maximum Salary is '|| to\_char(sal\_m)); 12 else dbms\_output.put\_line('Unable to open Cursor'); 14 end if; 15 close cur3; 16 end; 17 / Statement processed. Second Maximum Salary is 2850

4. Create a row trigger that will display the second highest salary of EMP table (or perform any other valid action) after any updation performed on the DEPT table.



## 5. Repeat problem no. 4 for before trigger.

```
SQL Worksheet
                                                                                      Actions ~
  1 --TRIGGER CREATION
  create or replace trigger tr2
before update on dept
  4 for each row
  5 declare
  6 secondMin emp.sal%type;
     begin
  8 select max(sal) into secondMin
  9 from emp
  where sal<(select max(sal) from emp);</pre>
  11
     dbms_output.put_line('Before Trigger , Second Highest Salary = '||to_char(secondMin));
  12
      end;
  13
  14
  15
      -- DEPT TABLE UPDATE
  16 update dept
 17 set dname='Sales'
 18 where deptno=30;
1 row(s) updated.
Before Trigger , Second Highest Salary = 3000
AFTER TRIGGER , Second Highest Salary = 3000
```

6. Modify the triggers of problem nos. 1 and 2 to statement triggers and observe the changes in the outputs.

#### SQL Worksheet

```
-----TRIGGER 3-----
 40
 42
     create or replace trigger tr3
 43
     before update on dept
 45
     SecondMin emp.sal%type;
 46
     select max(sal) into SecondMin
 49
     where sal<(select max(sal) from emp);
     dbms_output.put_line('Before Trigger Statement Second Maximum Salary is ' || SecondMin);
     end;
 53
 54
     create or replace trigger tr4
     after update on dept
 57
      declare
     SecondMin emp.sal%type;
 60
     select max(sal) into SecondMin
 61
     from emp
      where sal<(select max(sal) from emp);
     dbms_output.put_line('After Trigger Statement Second Maximum Salary is ' || SecondMin);
 64 end;
65 /
 67
     update dept
set loc='Kolkata'
 68
     where deptno in (10,20);
      -----CURSOR 1-----
Trigger created.
2 row(s) updated.
Before Trigger Statement Second Maximum Salary is 2850
Before Trigger Second Maximum Salary is 2850
After Trigger Second Maximum Salary is 2850
Before Trigger Second Maximum Salary is 2850
After Trigger Second Maximum Salary is 2850
After Trigger Statement Second Maximum Salary is 2850
```