Exp-12   PL/SQL Cursors

Aim : To manipulate data using PL/SQL cursors.

Cursor : A cursor is a temporary work area created in the system memory when a SQL statement is executed. A cursor contains information on a select statement & the rows of data accessed by it. This temporary work area is used to store the data retrieved from db, & manipulate this data. A cursor can hold more than one row but can process only one row at a time.

Q1) PL/SQL to update salaries of all employees who work in deptno 20 by 15%. If none salary are updated display message 'None of the salaries were updated.'

```
Declare
     num  num number(5);
Begin
     update emp set sal = sal + sal * 0.15 where deptno = 20;
if SQL%NOTFOUND then
     dbms.output.put_line('none of the salaries were updated');
elsif SQL%FOUND then
     num := SQL%ROWCOUNT;
```

Output :-

salaries for 5 employees are updated

```
dbms_output.putline ('salaries for' || num || 'employees are
      updated');
    End if;
    End;


Q2) Using cursors, write a PL/SQL block to display
    Empno, ename & Deptno from Emp dB.

    Declare
    Cursor C1 is select empno, ename, deptno from emp;
    EMPNUM emp.empno%Type;
    EMPNAME emp.ename%Type;
    DEPTNUM emp.deptno%Type;
    Begin Open C1;
    LOOP FETCH C1 into empnum, ename, deptnum;
    if c1%notfound then
        exit;
    else
        dbms_output.putline (EMPNUM ||'     '|| EMPNAME ||'
        '|| DEPTNUM);
    end if;
    END LOOP;
    end;
```

Output :-

7369 Smith   20
7499 Allen   30
7521 Ward   30
7566 Jones   20
7654 Martin   30
7698 Blake   30
7782 ~~Clar~~ Clark 10
7788 Scott   20
7839 King   10
7844 Turner   30
7876 Adams   20
7900 James   30
7902 Ford   20
7934 Miller   10

Q3) Using cursors, write a PL/SQL block to find the name & salary of first five highly paid employees.

```
Declare
   cursor c_emp is
   Select ename, salary
   from emp
   Order by salary desc;

      v_ename   emp.ename%Type;
      v_salary  emp.salary%Type;
      v_counter emp. NUMBER := 1;

   Begin
      OPEN c_emp;

   Loop
      Fetch c_emp into v_ename, v_salary;
      Exit when c_emp%NOTFOUND OR v_counter > 5;
      dbms_output.putline (' Employee Name: ' || v_ename || 'Salary: ' ||
         v_salary);

      v_counter := v_counter + 1;

   END LOOP;
   CLOSE c_emp;
   END;
```

Output

Employee Name : King   Salary : 5000

Employee Name : Ford   Salary : 3450

Employee Name : Scott   Salary : 3450

Employee Name : Jones   Salary : 3421.25

Employee Name : Blake   Salary : 2850