DBMS Assignment -10

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Consider an Employee Database which consists of details of employees within a company. The Emp_Detail table stores employee id, employee name with first & last name, salary and department id. The Department relation has department name, manager id and department id. The schema of tables are given below:

Emp_Detail(employee_id, first_name, last_name, salary, dept_id)

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY	DEPT_ID
1	John	aaa1	10000	11
2	Dennis	b1	8000	12
3	Albert	c1	11000	13
4	Charles	d1	7000	14
5	Richard	e1	17000	15

Download CSV
5 rows selected.

Department(Dept_name, Manager_id , dept_id)

DEPT_NAME	MANAGER_ID	DEPT_ID
LMNT	111	1000
SRTC	222	100
STORE	333	1100
TEST	444	700
ENQIRY	555	1700

Download CSV
5 rows selected.

1) **Write a program in PL/SQL, using a cursor display all information of employee having emp id 5 from emp_detail table.**

CODE :

```
DECLARE
   z_employee Emp_Detail%ROWTYPE;
BEGIN
   SELECT *
   INTO   z_employee
   FROM   Emp_Detail
   WHERE  employee_id = 5;

   dbms_output.Put_line('Employee Details :   ID:'
                        ||z_employee.employee_id
                        ||'  First Name: '
                        ||z_employee.first_name
                        ||'  Last Name: '
                        ||z_employee.last_name
                        ||'  Salary:  '
                        ||z_employee.salary
                        ||'  Dept ID:'
                        ||z_employee.dept_id);
END;
```

2) Write a program in PL/SQL, using an implicit cursor with for loop, display the first name, dept id and dept name of employees having salary more than 5000.

```
BEGIN
   FOR emprec IN(SELECT dept_name,
                        d.dept_id,
                                    first_name
                 FROM   department d
                      join emp_detail e
                        ON e.dept_id = d.dept_id
                 WHERE salary > 5000) LOOP
       dbms_output.Put_line('Name: '
                            ||emprec.first_name
                         ||' Department: '
                            ||emprec.dept_name
                            ||' Department ID: '
                            ||emprec.dept_id);
   END LOOP emprec;
END; /
```

SQL Worksheet

```
1  BEGIN
2      FOR emprec IN(SELECT dept_name,
3                           d.dept_id,
4                          first_name
5                   FROM   department d
6                          join emp_detail e
7                            ON e.dept_id = d.dept_id
8                   WHERE salary > 5000) LOOP
9          dbms_output.Put_line('Name: '
10                              ||emprec.first_name
11                              ||' Department: '
12                              ||emprec.dept_name
13                              ||' Department ID: '
14                              ||emprec.dept_id);
15     END LOOP emprec;
16 END;
17 /
```

```
Statement processed.
```

3) Write a PL/SQL program, using an implicit cursor to retrieve the name (First and last) and salary.

CODE :

```
BEGIN
   FOR emprec IN(SELECT
                          first_name, last_name,salary
            FROM  emp_detail)
             LOOP
      dbms_output.Put_line('Name: '
                ||emprec.first_name
                   ||' '
                   ||emprec.last_name
                   ||'      Salary: '
                   ||emprec.salary);

END LOOP emprec;
END;
```

/

SQL Worksheet

```
1
2  BEGIN
3      FOR emprec IN(SELECT
4                           first_name, last_name,salary
5                    FROM  emp_detail)
6                     LOOP
7          dbms_output.Put_line('Name: '
8                               ||emprec.first_name
9                               ||' '
10                              ||emprec.last_name
11                              ||'      Salary: '
12                              ||emprec.salary);
13     END LOOP emprec;
14 END;
15 /
```

```
Statement processed.
Name: John aaa1      Salary: 10000
Name: Dennis b1      Salary: 8000
Name: Albert c1      Salary: 11000
Name: Charles d1      Salary: 7000
Name: Richard e1      Salary: 17000
```

--> Use the following code for creating the above tables:
Create table Emp_Detail (employee_id number(4), first_name varchar2(4), last_name varchar2(4), Salary number(30), dept_id number(5));

insert into Emp_Detail values(1,'John', 'aaa1',10000,11); insert into Emp_Detail values(2,'Dennis', 'b1',8000,12); insert into Emp_Detail values(3,'Albert', 'c1',11000,13); insert into Emp_Detail values(4,'Charles', 'd1',7000,14); insert into Emp_Detail values(5,'Richard', 'e1',17000,15);

Create table Department (Dept_name varchar2(10), Manager_id number(4), dept_id number(5)); insert into Department values('LMNT', '111',1000); insert into Department values('SRTC', '222',100); insert into Department values('STORE', '333',1100); insert into Department values('TEST', '444',700); insert into Department values('ENQIRY', '555',1700);

(Explicit Cursor)

Consider an Employee Database which consists of details of employees within a company. The
Emp_Detail table stores employee id, employee name with first & last name, salary and department id. The Department relation has department name, manager id and department id. The schema of tables are given below:

Emp_Detail (employee_id, first_name, last_name, salary, dept_id)

Department (Dept_name, Manager_id , dept_id)

1. **Write a PL/SQL program, using an explicit cursor to retrieve the name (First and last) and salary.**

CODE:

```
DECLARE
   CURSOR emp_cursor IS
      SELECT first_name,last_name,salary FROM emp_detail;

   f_name emp_detail.first_name%TYPE;
    l_name emp_detail.last_name%TYPE;
     sal emp_detail.salary%TYPE;
BEGIN
   OPEN emp_cursor;
   LOOP
   FETCH emp_cursor into f_name,l_name,sal;
   EXIT WHEN emp_cursor%NOTFOUND;
   dbms_output.put_line('Name:' ||f_name||' '||l_name||'   Salary: '||sal);
   END LOOP;
   CLOSE emp_cursor;
END;
/
```

SQL Worksheet

```
DECLARE
    CURSOR emp_cursor IS
        SELECT first_name,last_name,salary FROM emp_detail;

    f_name emp_detail.first_name%TYPE;
     l_name emp_detail.last_name%TYPE;
      sal emp_detail.salary%TYPE;
BEGIN
    OPEN emp_cursor;
    LOOP
    FETCH emp_cursor into f_name,l_name,sal;
    EXIT WHEN emp_cursor%NOTFOUND;
    dbms_output.put_line('Name:' ||f_name||' '||l_name||'   Salary: '||sal);
    END LOOP;
    CLOSE emp_cursor;
END;
```

```
Statement processed.
Name:John aaa1   Salary: 10000
Name:Dennis b1   Salary: 8000
Name:Albert c1   Salary: 11000
Name:Charles d1   Salary: 7000
Name:Richard e1   Salary: 17000
```

2. **Write a program in PL/SQL using an explicit cursor, retrieve the records from the emp_detail table and display the details of employees whose salary is more than 8000.**

CODE:

```
DECLARE
  z_empid emp_detail.employee_id%TYPE;
  z_fname emp_detail.first_name%TYPE;
  z_lname  emp_detail.last_name%TYPE;
   z_salary emp_detail.salary%TYPE;
  CURSOR employee_cursor IS
    SELECT employee_id, first_name,last_name,salary FROM   emp_detail;
BEGIN
  OPEN employee_cursor;
   dbms_output.Put_line('ID      NAME     SALARY');
  LOOP
    FETCH employee_cursor INTO z_empid,z_fname,z_lname,z_salary;
    EXIT WHEN employee_cursor%NOTFOUND;
    IF (z_salary > 8000) THEN
      dbms_output.Put_line(z_empid|| '   '|| z_fname||'   '||z_lname|| '   '|| z_salary);
    END IF;
```

```
  END LOOP;
  CLOSE employee_cursor;
END;
```

SQL Worksheet

```
1  DECLARE
2    z_empid emp_detail.employee_id%TYPE;
3    z_fname emp_detail.first_name%TYPE;
4    z_lname  emp_detail.last_name%TYPE;
5     z_salary emp_detail.salary%TYPE;
6    CURSOR employee_cursor IS
7      SELECT employee_id, first_name,last_name,salary FROM   emp_detail;
8  BEGIN
9    OPEN employee_cursor;
10    dbms_output.Put_line('ID      NAME     SALARY');
11   LOOP
12     FETCH employee_cursor INTO z_empid,z_fname,z_lname,z_salary;
13     EXIT WHEN employee_cursor%NOTFOUND;
14     IF (z_salary > 8000) THEN
15       dbms_output.Put_line(z_empid|| '   '|| z_fname||'   '||z_lname|| '   '|| z_salary);
16     END IF;
17   END LOOP;
18   CLOSE employee_cursor;
19 END;
```

```
Statement processed.
ID      NAME     SALARY
1   John   aaa1   10000
3   Albert   c1   11000
5   Richard   e1   17000
```

3. Write a PL/SQL block to display the top 6 employees with respect to salaries using cursors.

CODE:

```
DECLARE
   CURSOR emp IS
        SELECT first_name,salary
          FROM emp_detail
       ORDER BY salary DESC;

   a     NUMBER (10) :=6;
   sal   emp_detail.salary%TYPE;
```

```
   name emp_detail.first_name%TYPE;
BEGIN
   OPEN emp;
   LOOP
      FETCH emp INTO name,sal;
      DBMS_OUTPUT.put_line ('NAME: '||name||'   SALARY: '||sal);
      EXIT WHEN emp%ROWCOUNT=a OR emp%NOTFOUND;
   END LOOP;
   CLOSE emp;
END;
```

SQL Worksheet

```
1  DECLARE
2      CURSOR emp IS
3           SELECT first_name,salary
4             FROM emp_detail
5          ORDER BY salary DESC;
6
7      a      NUMBER (10) :=6;
8      sal    emp_detail.salary%TYPE;
9      name emp_detail.first_name%TYPE;
10 BEGIN
11     OPEN emp;
12     LOOP
13         FETCH emp INTO name,sal;
14         DBMS_OUTPUT.put_line ('NAME: '||name||'   SALARY: '||sal);
15         EXIT WHEN emp%ROWCOUNT=a OR emp%NOTFOUND;
16     END LOOP;
17     CLOSE emp;
18 END;
```

```
Statement processed.
NAME: Richard   SALARY: 17000
NAME: Albert   SALARY: 11000
NAME: John   SALARY: 10000
NAME: Dennis   SALARY: 8000
NAME: Charles   SALARY: 7000
```

4. Write a PL/SQL block, using a cursor attribute to update the table & increase salary of each customer by 2000.

CODE:

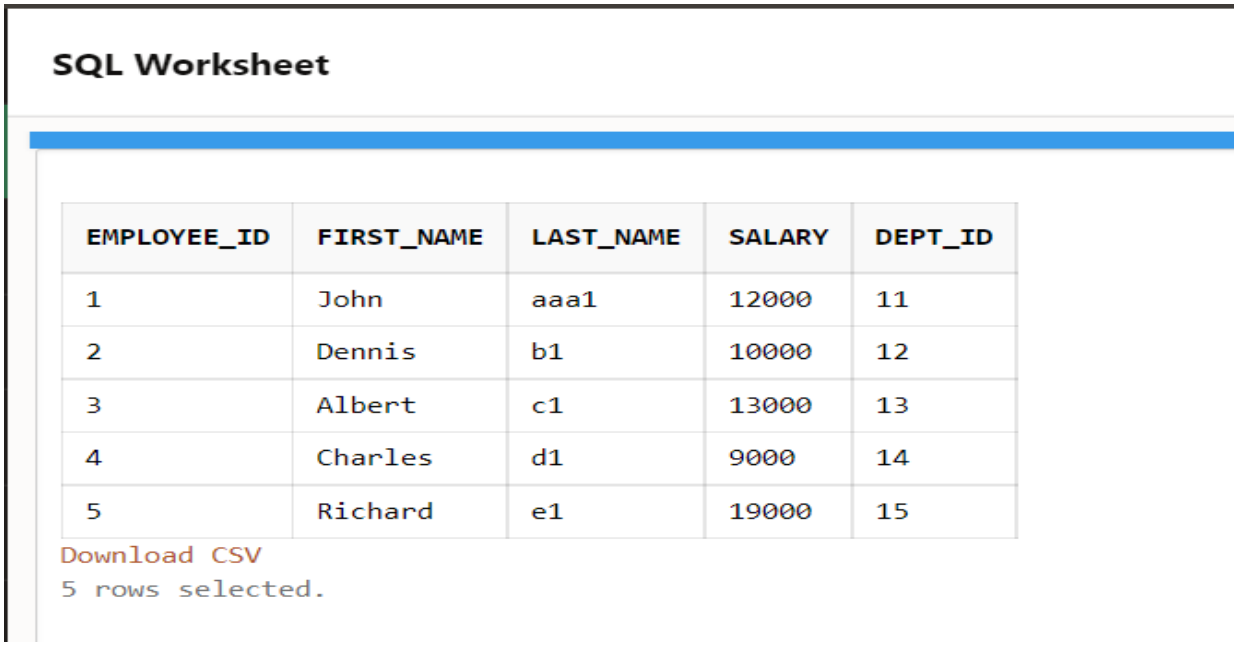
```
DECLARE
  CURSOR cur_emp
```

```
 IS
   SELECT * FROM emp_detail;
 rec_emp cur_emp%ROWTYPE;
BEGIN
 OPEN cur_emp;
 LOOP
   FETCH cur_emp INTO rec_emp;
   EXIT WHEN cur_emp%notfound;
     UPDATE emp_detail
     SET salary= salary + 2000
     WHERE employee_id = rec_emp.employee_id;
 END LOOP;
 CLOSE cur_emp;
END;
```

SQL Worksheet

```
33  / */
34  DECLARE
35    CURSOR cur_emp
36    IS
37      SELECT * FROM emp_detail;
38    rec_emp cur_emp%ROWTYPE;
39  BEGIN
40    OPEN cur_emp;
41    LOOP
42      FETCH cur_emp INTO rec_emp;
43      EXIT WHEN cur_emp%notfound;
44        UPDATE emp_detail
45        SET salary= salary + 2000
46        WHERE employee_id = rec_emp.employee_id;
47    END LOOP;
48    CLOSE cur_emp;
49  END;
```

```
Statement processed.
```



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'aaa1',10000,11); insert into Emp_Detail

values(2,'Dennis', 'b1',8000,12); insert into

Emp_Detail values(3,'Albert', 'c1',11000,13);

insert into

Emp_Detail values(4,'Charles', 'd1',7000,14); insert into

Emp_Detail values(5,'Richard', 'e1',17000,15);

Create table Department (Dept_name varchar2(10), Manager_id number(4),

dept_id number(5)); insert into Department values('LMNT', '111',1000);

insert into Department values('SRTC', '222',100); insert into Department

values('STORE', '333',1100); insert into Department values('TEST', '444',700); insert into Department values('ENQIRY', '555',1700);