**Exercise**

1. **Create table empsal with id number(2) primary key, name varchar(12), salary number(5).**

SQL> Create table empsal (id number(2) primary key, name varchar(12), salary number(5));

Table created.

1. **Insert the following data into tables**

**ID NAME SALARY**

**1 Sneha 20000**

**2 Raj 25000**

**3 Shweta 35000**

**4 Seema 45000**

**5 Neeta 55000**

SQL> insert into empsal values('1','Sneha','20000');

1 row created.

SQL> insert into empsal values('2','Raj','25000');

1 row created.

SQL> insert into empsal values('3','Shweta','35000');

1 row created.

SQL> insert into empsal values('4','Seema','45000');

1 row created.

SQL> insert into empsal values('5','Neeta','55000');

1 row created.

SQL> select \* from empsal;

ID NAME SALARY

---------- ------------ ----------

1 Sneha 20000

2 Raj 25000

3 Shweta 35000

4 Seema 45000

5 Neeta 55000

1. **Implement implicit cursor.**

SQL> set serveroutput on;

SQL> set echo on;

SQL> Declare var\_rows number(6);

2 Begin

3 Update empsal set salary=salary+1000;

4 IF SQL%NOTfound then

5 dbms\_output.put\_line('No Salary Updated');

6 ELSIF SQL%Found then

7 var\_rows:=SQL%Rowcount;

8 dbms\_output.put\_line('Salary for ' || var\_rows || ' Updated successfully');

9 end if;

10 end;

11 /

Salary for 5 Updated successfully

PL/SQL procedure successfully completed.

1. **Implement explicit cursor.**

SQL> Declare

2 emp\_rec empsal%rowtype;

3 cursor emp\_cur1 is select \* from empsal where salary>10000;

4 Begin

5 open emp\_cur1;

6 fetch emp\_cur1 into emp\_rec;

7 dbms\_output.put\_line(emp\_rec.name|| ' ' || emp\_rec.salary);

8 close emp\_cur1;

9 end;

10 /

Sneha 22000

PL/SQL procedure successfully completed.

1. **Implement cursor with simple loop.**

SQL> Declare

2 emp\_rec1 empsal%rowtype;

3 cursor emp\_cur11 is select \* from empsal where salary>10000;

4 Begin

5 open emp\_cur11;

6 loop

7 fetch emp\_cur11 into emp\_rec1;

8 exit when emp\_cur11%NOTFound;

9 dbms\_output.put\_line(emp\_rec1.name|| ' ' || emp\_rec1.salary);

10 end loop;

11 close emp\_cur11;

12 end;

13 /

Sneha 22000

Raj 27000

Shweta 37000

Seema 47000

Neeta 57000

PL/SQL procedure successfully completed.

1. **Implement cursor with a while loop.**

SQL> Declare

2 emp\_rec1 empsal%rowtype;

3 cursor emp\_cur11 is select \* from empsal where salary>10000;

4 Begin

5 open emp\_cur11;

6 fetch emp\_cur11 into emp\_rec1;

7 while(emp\_cur11%Found)loop

8 dbms\_output.put\_line(emp\_rec1.name|| ' ' || emp\_rec1.salary);

9 fetch emp\_cur11 into emp\_rec1;

10 end loop;

11 close emp\_cur11;

12 end;

13 /

Sneha 22000

Raj 27000

Shweta 37000

Seema 47000

Neeta 57000

PL/SQL procedure successfully completed.

1. **Implement cursor with for loop.**

SQL> Declare

2 emp\_rec1 empsal%rowtype;

3 cursor emp\_cur11 is select \* from empsal where salary>10000;

4 Begin

5 for emp\_rec1 in emp\_cur11

6 loop

7 dbms\_output.put\_line(emp\_rec1.name|| ' ' || emp\_rec1.salary);

8 end loop;

9 end;

10 /

Sneha 20000

Sneha 35000

PL/SQL procedure successfully completed.

1. **Implement exception-Division by zero.**

SQL> begin

2 dbms\_output.put\_line(1/0);

3 Exception

4 when zero\_divide then

5 dbms\_output.put\_line('DIVISION BY ZERO');

6 end;

7 /

DIVISION BY ZERO

PL/SQL procedure successfully completed.

1. **Implement exception- Invalid Number.**

SQL> begin

2 insert into empsal(id,salary) values('6','ABC');

3 Exception

4 when invalid\_number then

5 dbms\_output.put\_line('Inserted value doesnt match the column datatype');

6 end;

7 /

Inserted value doesnt match the column datatype

PL/SQL procedure successfully completed.

1. **Implement exception- Duplicate value.**

SQL> begin

2 insert into empsal(id) values('1');

3 Exception

4 when dup\_val\_on\_Index then

5 dbms\_output.put\_line('Duplicated Values Encountered');

6 end;

7 /

Duplicated Values Encountered

PL/SQL procedure successfully completed.

1. **Implement exception-No data found.**

SQL> declare

2 v\_emp empsal.id%type;

3 begin

4 select id into v\_emp from empsal where id='10';

5 Exception

6 when no\_data\_found then

7 dbms\_output.put\_line('No data found');

8 end;

9 /

No data found

PL/SQL procedure successfully completed.