**Exercise 1: Procedure**

**1. Calling procedure from SQL prompt.**

SQL> Create procedure hello\_world as

2 begin

3 dbms\_output.put\_line('Hello world');

4 end;

5 /

Procedure created.

SQL> exec hello\_world();

Hello world

PL/SQL procedure successfully completed.

**2. Program to pass parameters to procedures for addition of n numbers.**

SQL> Create or replace procedure prc\_sum(num1 in number,num2 in number) as

2 c number;

3 begin

4 c:=num1+num2;

5 dbms\_output.put\_line('Sum of both numbers is: '||c);

6 end;

7 /

Procedure created.

SQL> exec prc\_sum(15,20);

Sum of both numbers is: 35

PL/SQL procedure successfully completed.

**3. Program to calculate area of a circle.**

SQL> Create or replace procedure are\_cir(rad float) as

2 a float;

3 begin

4 a:=3.141\*rad\*rad;

5 dbms\_output.put\_line('Area of circle is: '||a);

6 end;

7 /

Procedure created.

SQL> exec are\_cir(2);

Area of circle is: 12.564

PL/SQL procedure successfully completed.

**4. Procedure to display customer name and address given a branch code.**

SQL> Create or replace procedure emp\_det(n in varchar) as

2 e\_rec emp\_1%rowtype;

3 cursor curl is select \* from emp\_1 where eid=n;

4 begin

5 open curl;

6 fetch curl into e\_rec;

7 dbms\_output.put\_line(e\_rec.ename || e\_rec.salary);

8 close curl;

9 end;

10 /

Procedure created.

SQL> call emp\_det('E0002');

Bryan30000

Call completed.

**5. Procedure to update any table and reflect the changes.**

SQL> Create or replace procedure upt\_emp(n in number) as

2 begin

3 update emp\_1 set salary=salary\*n;

4 commit;

5 end;

6 /

Procedure created.

SQL> select \* from emp\_1;

EID ENAME MOBILE SALARY COUNTRY DESGN

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

E0001 Alan 1234567890 40000 India Technician

E0002 Bryan 987654321 60000 UK Manager

E0003 Ryan 1234567890 70000 USA Engineer

E0005 Jimmy 1234567890 90000 India Secretary

SQL> call upt\_emp(4);

Call completed.

SQL> select \* from emp\_1;

EID ENAME MOBILE SALARY COUNTRY DESGN

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

E0001 Alan 1234567890 160000 India Technician

E0002 Bryan 987654321 240000 UK Manager

E0003 Ryan 1234567890 280000 USA Engineer

E0005 Jimmy 1234567890 360000 India Secretary

**Exercise 2: Functions**

**1. Program to implement factorial of a number using functions.**

SQL> Create or replace function fact(n number)return number is

2 i number(3);

3 f number:=1;

4 begin

5 for i in 1..n

6 loop

7 f:=f\*i;

8 end loop;

9 return(f);

10 end fact;

11 /

Function created.

SQL> declare

2 begin

3 dbms\_output.put\_line('Factorial of the entered number: '||fact(5));

4 end;

5 /

Factorial of the entered number: 120

PL/SQL procedure successfully completed.

**2. Program to write a function to concatenate the strings.**

SQL> Create or replace function cont(a varchar2, b varchar2) return varchar is

2 ab varchar2(25):=null;

3 begin

4 ab:=a||b;

5 return substr(ab,1,25);

6 end;

7 /

Function created.

SQL> select cont('This is',' working') as concatenation from dual;

CONCATENATION

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

This is working

**3. Program to write a function to implement multiplication of two numbers.**

SQL> Create or replace function mul(a int,b int) return int is

2 begin

3 return(a\*b);

4 end;

5 /

Function created.

SQL> declare

2 begin

3 dbms\_output.put\_line('Multiplication of the numbers : '||mul(4,5));

4 end;

5 /

Multiplication of the numbers : 20

PL/SQL procedure successfully completed.

**4. Program to retrieve the name of the employee with ID=’E002’.**

SQL> select \* from emp\_1;

EID ENAME MOBILE SALARY COUNTRY DESGN

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

E0001 Alan 1234567890 160000 India Technician

E0002 Bryan 987654321 240000 UK Manager

E0003 Ryan 1234567890 280000 USA Engineer

E0005 Jimmy 1234567890 360000 India Secretary

SQL> Create or replace function ename\_func return varchar is

2 sname varchar(20);

3 begin

4 select ename into sname from emp\_1 where eid='E0002';

5 return sname;

6 end;

7 /

Function created.

SQL> begin

2 dbms\_output.put\_line('Name is : '||ename\_func);

3 end;

4 /

Name is : Bryan

PL/SQL procedure successfully completed.

**5. Program to write a function with parameters passed from the table.**

SQL> Create or replace function ename\_func\_p(eidvar emp\_1.eid%type) return varchar is

2 sample\_name varchar(20);

3 begin

4 select ename into sample\_name from emp\_1 where eid=eidvar;

5 return sample\_name;

6 end;

7 /

Function created.

SQL> declare

2 sname varchar(20);

3 begin

4 sname:=ename\_func\_p('E0002');

5 dbms\_output.put\_line('Name is : '||sname);

6 end;

7 /

Name is : Bryan

PL/SQL procedure successfully completed.