EXP NO: 08	Factorial in PL/SQL
DATA: 07/04/2022	

<u>Aim:</u> Write PL/SQL program to find factorial of a number.

<u>Description about the problem</u>:

- Write a pl/SQL program for finding the factorial of a number
- The factorial of a number is the product of all the integers from 1 to that number. For example, the factorial of 6 is 1*2*3*4*5*6 = 720. Factorial is not defined for negative numbers, and the factorial of zero is one, 0! = 1

<u>Queries:</u>

- ➢ declare
    ```
    declare
         fac number :=1;
        n number :=5;
     begin
        while n>0 loop
          fac:=n*fac;
          n:=n-1;
        end loop;
        dbms_output.put_line(fac);
    end;
    ```

- ➢ declare
    ```
    declare
          fac number :=1;
          n number :=10;
    begin
        while n>0 loop
          fac:=n*fac;
          n:=n-1;
        end loop;
        dbms_output.put_line(fac);
    end;
    ```

<u>Result:</u>
Successfully implemented Pl/SQL code to find factorial of a number.

My Scripts \ **Script**

ⓘ   Actions ⌄   ✎ Edit Attributes   ▶ **Run Script**

Name	**Session 08**
Description	1. write a pl/SQL program for finding the factorial of a number 2. Execute the below-given programs s1 and s2 and submit the results. Txt 1 create table emp_grade(empno number, grade char(1)); Declare Emp_rec emp%rowtype; Cursor c is select * into emp_rec from emp; Begin Open c; If c%ISOPEN then Loop Fetch c into emp_rec; If c%notfound then Exit; Endif; If emp_rec.sal <= 1400 then Insert into emp_grade values(emp_rec.empno,'C'); Elsif emp_rec.sal between 1401 and 2000 then Insert into emp_garde values(em_rec.empno,'B'); Else Insert into emp_garde values(em_rec.empno,'A'); Endif End loop; Else Open c; Endif; End; Txt 2 Declare a number; b number; c number; Begin dbms_output.put_line('Enter a:'); a:=&a; dbms_output.put_line('Enter b:'); b:=&b; dbms_output.put_line('Enter c:'); c:=&c; if (a>b) and (a>c) then dbms_output.putline('A is Maximum'); elsif (b>a) and (b>c) then dbms_output.putline('B is Maximum'); else dbms_output.putline('C is Maximum'); end if; End; / SET SERVEROUTPUT ON
Area	-
Visibility	Publicly Shareable - available via unlisted URL
Contributor	RA1911027010007
Share Link	https://livesql.oracle.com/apex/livesql/s/nds07samkmwoq1facl87qdrj2
Tags	-
Script Results	We cannot determine the last run date for this script. What's This?
Last Updated	Thursday April 28, 2022 (Created 6 days ago)
Metrics	9 Statements, 2,371 bytes

Statement **1**

🗑 Edit

```
declare
    fac number :=1;
    n number :=5;
begin
   while n>0 loop
    fac:=n*fac;
    n:=n-1;
   end loop;
   dbms_output.put_line(fac);
end;
```

Statement processed.
120

Statement **2**

🗑 [Edit]

```
declare
    fac number :=1;
    n number :=10;
begin
    while n>0 loop
    fac:=n*fac;
    n:=n-1;
    end loop;
    dbms_output.put_line(fac);
end;
```

Statement processed.
3628800

Statement **3**

🗑 [Edit]

```
declare
    fac number :=1;
    n number :=2;
begin
    while n>0 loop
    fac:=n*fac;
    n:=n-1;
    end loop;
    dbms_output.put_line(fac);
end;
```

Statement processed.
2

Statement **4**

🗑 [Edit]

```
declare
    fac number :=1;
    n number :=5;
begin
    while n>0 loop
    fac:=n*fac;
    n:=n-1;
    end loop;
    dbms_output.put_line(fac);
end;
```

Statement processed.
120

Statement **5**

🗑 [Edit]

```
declare
    fac number :=1;
    n number :=10;
begin
    while n>0 loop
```

```
        end loop;
        dbms_output.put_line(fac);
    end;
```

Statement processed.
3628800
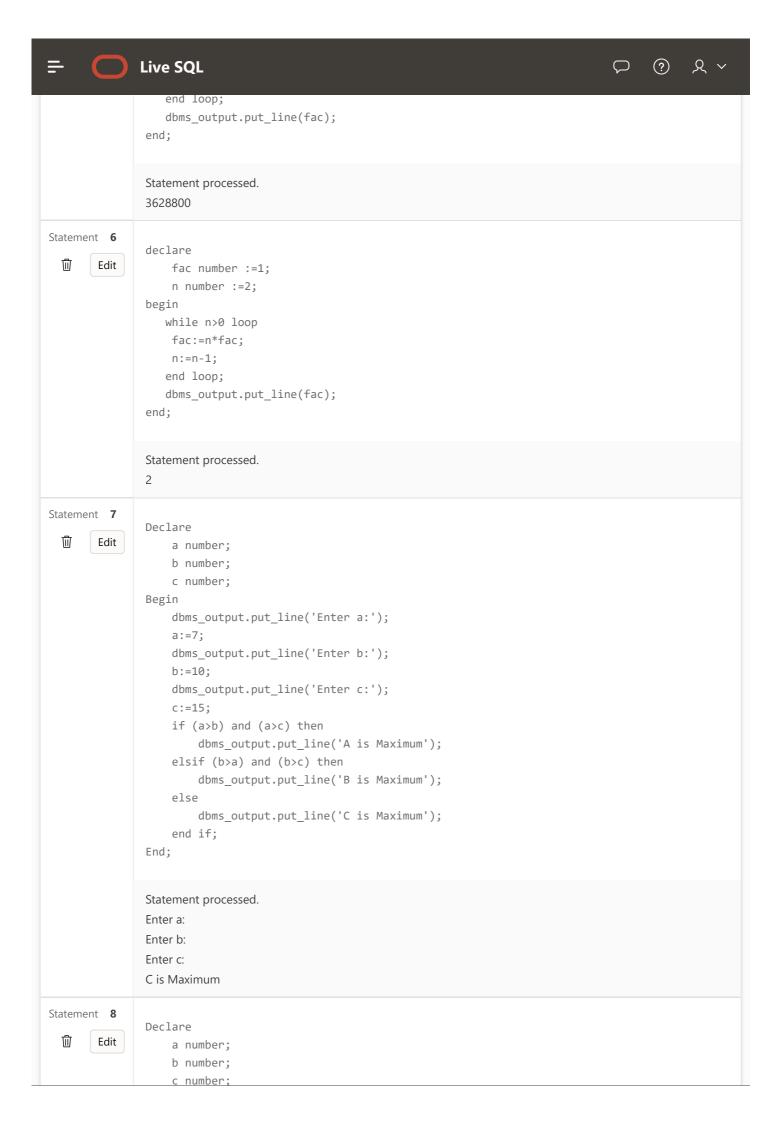
Statement **6**

🗑 Edit

```
declare
    fac number :=1;
    n number :=2;
begin
    while n>0 loop
    fac:=n*fac;
    n:=n-1;
    end loop;
    dbms_output.put_line(fac);
end;
```

Statement processed.
2

Statement **7**

🗑 Edit

```
Declare
    a number;
    b number;
    c number;
Begin
    dbms_output.put_line('Enter a:');
    a:=7;
    dbms_output.put_line('Enter b:');
    b:=10;
    dbms_output.put_line('Enter c:');
    c:=15;
    if (a>b) and (a>c) then
        dbms_output.put_line('A is Maximum');
    elsif (b>a) and (b>c) then
        dbms_output.put_line('B is Maximum');
    else
        dbms_output.put_line('C is Maximum');
    end if;
End;
```

Statement processed.
Enter a:
Enter b:
Enter c:
C is Maximum

Statement **8**

🗑 Edit

```
Declare
    a number;
    b number;
    c number;
```

```
        a:=7;
        dbms_output.put_line('Enter b:');
        b:=10;
        dbms_output.put_line('Enter c:');
        c:=15;
        if (a>b) and (a>c) then
            dbms_output.put_line('A is Maximum');
        elsif (b>a) and (b>c) then
            dbms_output.put_line('B is Maximum');
        else
            dbms_output.put_line('C is Maximum');
        end if;
    End;
```

Statement processed.
Enter a:
Enter b:
Enter c:
C is Maximum

Statement **9**

🗑 Edit

```
Declare
    a number;
    b number;
    c number;
Begin
    dbms_output.put_line('Enter a:');
    a:=16;
    dbms_output.put_line('Enter b:');
    b:=10;
    dbms_output.put_line('Enter c:');
    c:=15;
    if (a>b) and (a>c) then
        dbms_output.put_line('A is Maximum');
    elsif (b>a) and (b>c) then
        dbms_output.put_line('B is Maximum');
    else
        dbms_output.put_line('C is Maximum');
    end if;
End;
```

Statement processed.
Enter a:
Enter b:
Enter c:
A is Maximum

▶ **Script Update Details**