

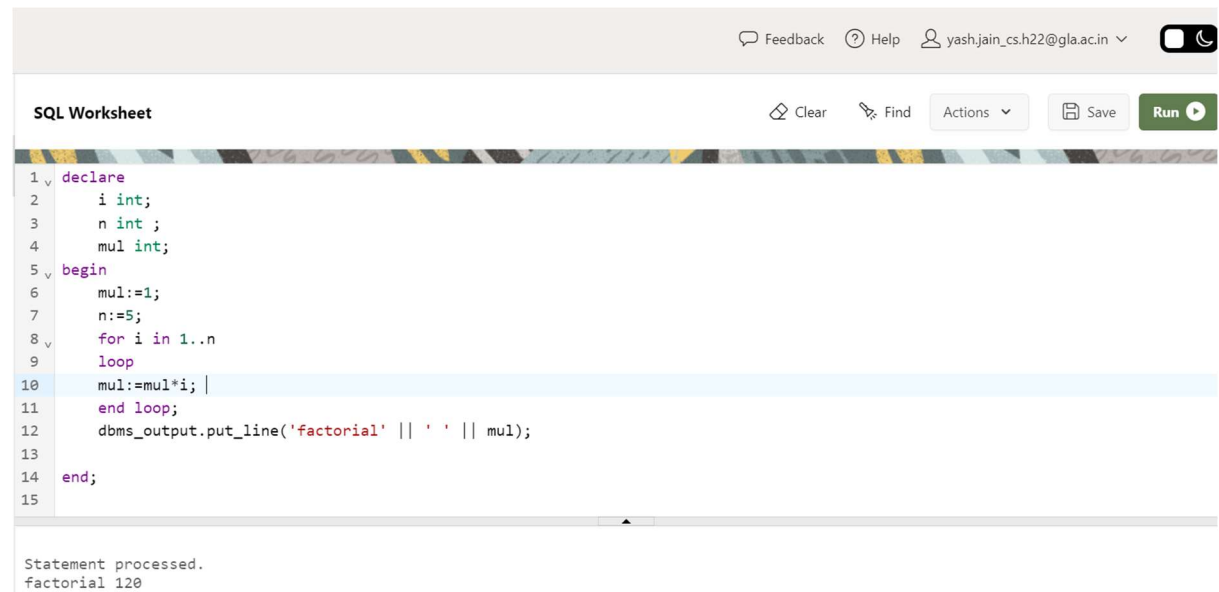
# DBMS ASSIGNMENT 8

NAME- YASH JAIN

COURSE-B.TECH(H.)-CS-2<sup>ND</sup> YR

ROLL NO.- 2215800033

1. Write a PL/SQL code block to compute the factorial of a number.

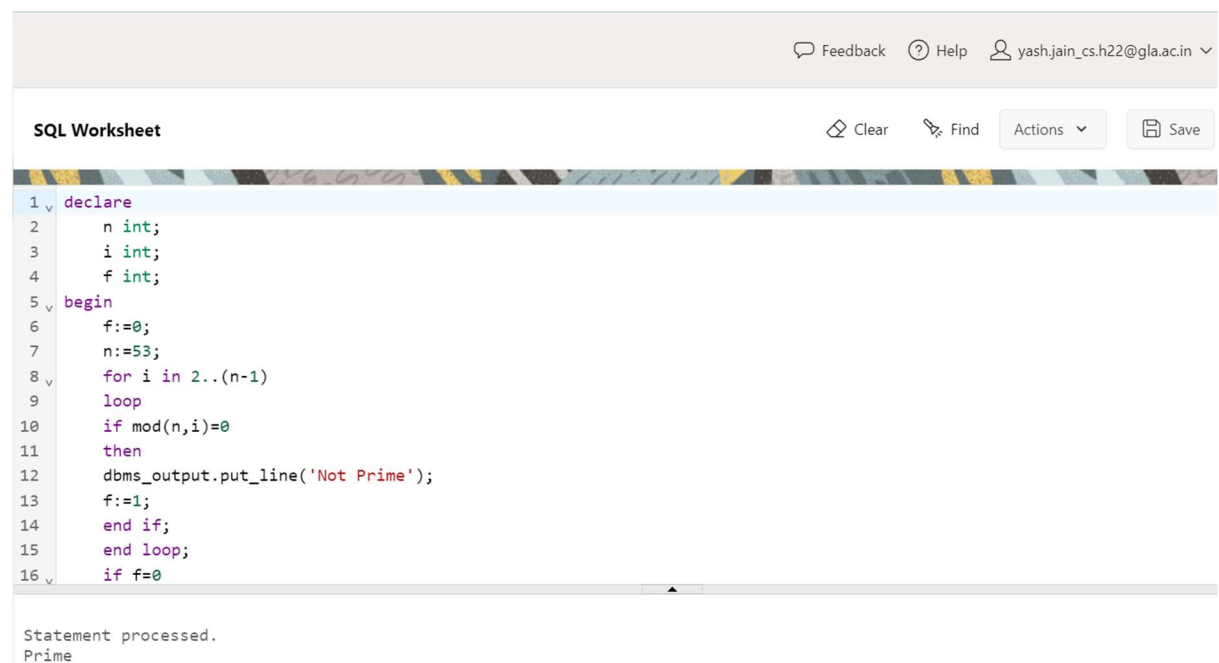


SQL Worksheet

```
1 v declare
2     i int;
3     n int;
4     mul int;
5 v begin
6     mul:=1;
7     n:=5;
8 v     for i in 1..n
9         loop
10            mul:=mul*i;
11        end loop;
12        dbms_output.put_line('factorial' || ' ' || mul);
13    end;
15
```

Statement processed.  
factorial 120

2. Write a PL/SQL code block to determine whether the number is prime or not.



SQL Worksheet

```
1 v declare
2     n int;
3     i int;
4     f int;
5 v begin
6     f:=0;
7     n:=53;
8 v     for i in 2..(n-1)
9         loop
10            if mod(n,i)=0
11            then
12                dbms_output.put_line('Not Prime');
13                f:=1;
14            end if;
15        end loop;
16 v     if f=0
```

Statement processed.  
Prime

3. Write a PL/SQL code block to display n terms of a fibonacci series.

≡  Live SQL

SQL Worksheet

```
46 Q3
47 DECLARE
48     n NUMBER := 10;
49     a NUMBER := 0;
50     b NUMBER := 1;
51     fib NUMBER;
52 BEGIN
53     DBMS_OUTPUT.PUT(a || ' ' || b || ' ');
54     FOR i IN 3..n LOOP
55         fib := a + b;
56         DBMS_OUTPUT.PUT(fib || ' ');
57         a := b;
58         b := fib;
59     END LOOP;
60 END;
```

Statement processed.

4. Write a PL/SQL code block to display the names and GPA of students from student table using an explicit cursor.

```
80 DECLARE
81     CURSOR student_cursor IS
82         SELECT sName, GPA FROM Student;
83     v_student_name Student.sName%TYPE;
84     v_gpa Student.GPA%TYPE;
85 BEGIN
86     OPEN student_cursor;
87     LOOP
88         FETCH student_cursor INTO v_student_name, v_gpa;
89         EXIT WHEN student_cursor%NOTFOUND;
90         DBMS_OUTPUT.PUT_LINE('Student: ' || v_student_name || ', GPA: ' || v_gpa);
91     END LOOP;
92     CLOSE student_cursor;
93 END;
```

Statement processed.  
Student: Amy, GPA: 3.9  
Student: Bob, GPA: 3.6  
Student: Craig, GPA: 3.5  
Student: Doris, GPA: 3.9  
Student: Edward, GPA: 2.9  
Student: Fay, GPA: 3.8  
Student: Gary, GPA: 3.4  
Student: Helen, GPA: 3.7  
Student: Irene, GPA: 3.9

5. Write a PL/SQL code block that displays the names, GPA of students along with the grades of students after calculation from student table using an explicit cursor. Add a column grade to the student table; update the grades of students to the table after calculation. (The criteria of grade can be considered as grade = A if gpa>3.7; and grade = B, otherwise).

SQL Worksheet Clear Find Actions Save Run

```
90     DBMS_OUTPUT.PUT_LINE('Student: ' || v_student_name || ', GPA: ' || v_gpa);
91     END LOOP;
92     CLOSE student_cursor;
93 END;
94
95 Q5
96
97 declare
98     sCur is select sname ,gpa from student;
99     vName student.sname%type;
100     vgpa student.gpa%type;
101 begin
102     open sCur;
103     loop
104         fetch sCur into vName,vgpa;
105         dbms_output.put_line('student:' || vName || ' GPA: ' || vgpa);
106     exit when
```

