DBMS ASSIGNMENT 8

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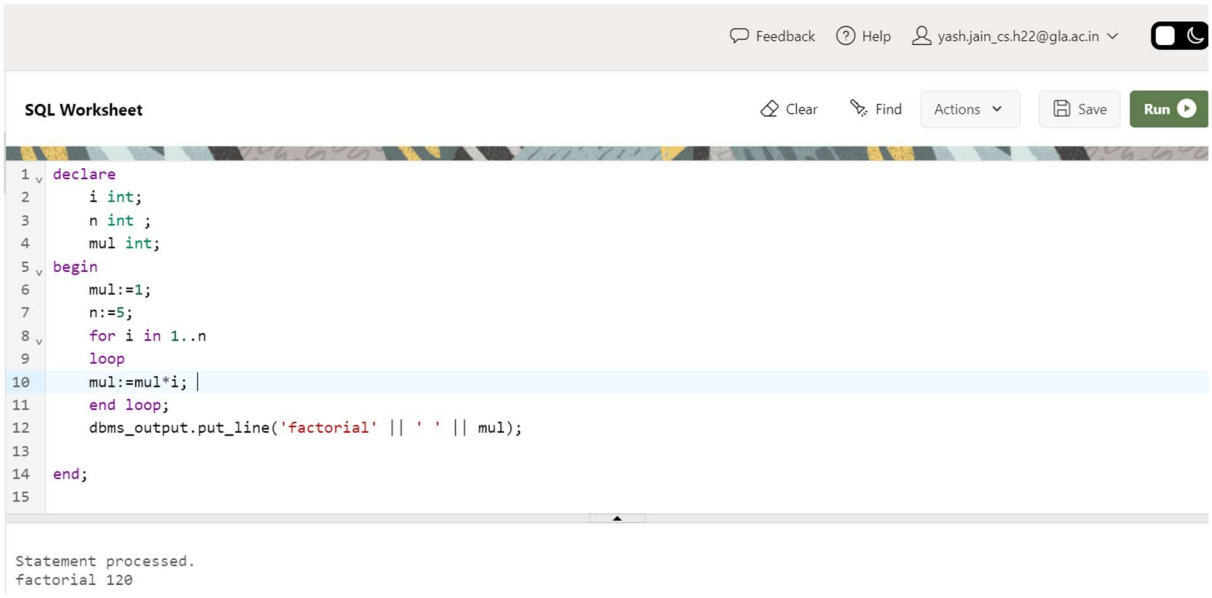
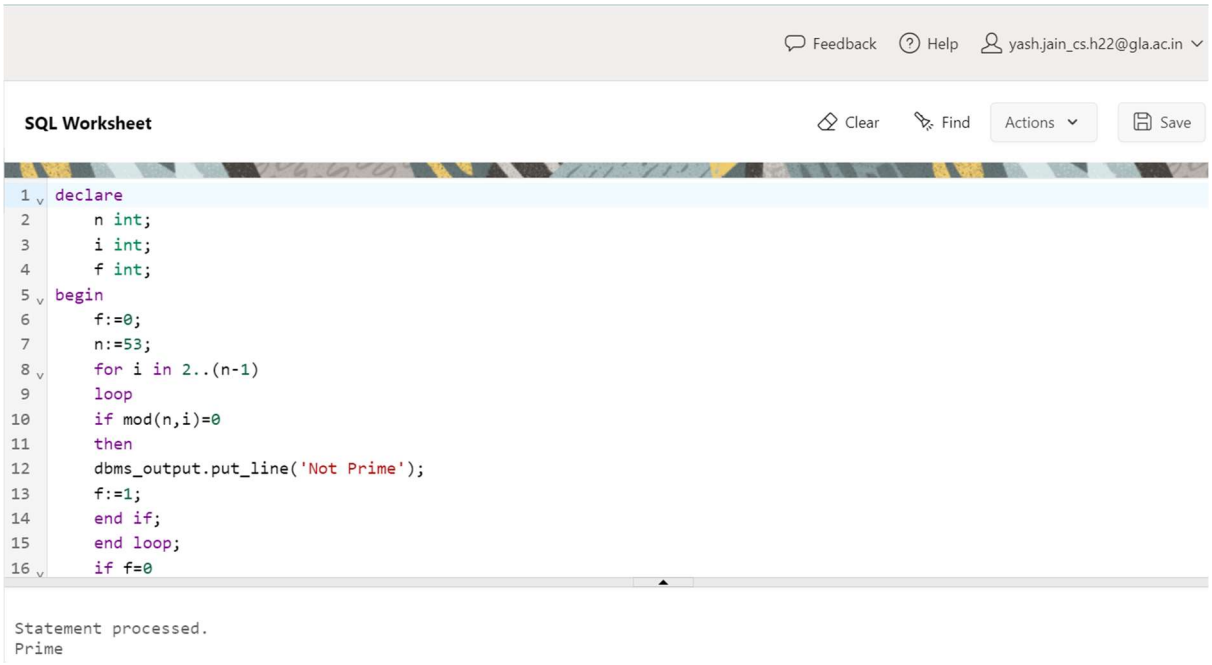
COURSE-B.TECH(H.)-CS-2ND YR

ROLL NO.- 2215800033

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



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



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

Live SQL

SQL Worksheet

```
Q3
DECLARE
    n NUMBER := 10;
    a NUMBER := 0;
    b NUMBER := 1;
    fib NUMBER;
BEGIN
    DBMS_OUTPUT.PUT(a || ' ' || b || ' ');
    FOR i IN 3..n LOOP
        fib := a + b;
        DBMS_OUTPUT.PUT(fib || ' ');
        a := b;
        b := fib;
    END LOOP;
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.

```
DECLARE
    CURSOR student_cursor IS
        SELECT sName, GPA FROM Student;
    v_student_name Student.sName%TYPE;
    v_gpa Student.GPA%TYPE;
BEGIN
    OPEN student_cursor;
    LOOP
        FETCH student_cursor INTO v_student_name, v_gpa;
        EXIT WHEN student_cursor%NOTFOUND;
        DBMS_OUTPUT.PUT_LINE('Student: ' || v_student_name || ', GPA: ' || v_gpa);
    END LOOP;
    CLOSE student_cursor;
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 g rades 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 ca lculation. (The criteria of grade can be considered as grade = A if gpa>3.7; and grade = B, oth erwise).

SQL Worksheet Clear Find Actions Save Run

```
        DBMS_OUTPUT.PUT_LINE('Student: ' || v_student_name || ', GPA: ' || v_gpa);
    END LOOP;
    CLOSE student_cursor;
END;

Q5

declare
cursor sCur is select sname ,gpa from student;
vName student.sname%type;
vgpa student.gpa%type;
begin
open sCur;
loop
fetch sCur into vName,vgpa;
dbms_output.put_line('student:'||vName||' GPA:'||vgpa);
exit when
```