PL/SQL Assignment 3

Name: Krunal Rank

Roll No: U18CO081

Class: BTech 2nd Year

Division: B

1.

```
set serveroutput on size 30000;



CREATE OR REPLACE PROCEDURE factorial(n IN NUMBER, fact OUT NUMBER)

IS

BEGIN

    fact := 1;

    fOR i IN 1..n

    LOOP

        fact := fact * i;

    END LOOP;

END;

/

DECLARE

    n NUMBER := &n;

    fact NUMBER := 0;

BEGIN

    factorial(n,fact);

    dbms_output.put_line('The factorial of '||n||' is '||fact||'!');
```

```
END;

/

CREATE OR REPLACE PROCEDURE getGrade(score IN NUMBER, grade OUT VARCHAR)

IS

BEGIN

    IF score > 100 OR score < 0 THEN

        grade := 'NULL';

    ELSIF score >= 75 THEN

        grade := 'A';

    ELSIF score >= 50 THEN

        grade := 'B';

    ELSIF score >= 25 THEN

        grade := 'C';

    ELSE

        grade := 'D';

    END IF;


END;

/
```

```
DECLARE

    score NUMBER := &score;

    grade VARCHAR(5) := 'NULL';

BEGIN

    getGrade(score,grade);

    dbms_output.put_line('Given Score: '||score);

    dbms_output.put_line('Obtained Grade: '||grade);

END;

/
```

```
The factorial of 5 is 120!

|
PL/SQL procedure successfully completed.
```

```
Given Score: 85
Obtained Grade: A


PL/SQL procedure successfully completed.
```

2.

TABLE CREATION:

```
CREATE TABLE EMPLOYEE(

    ID INTEGER PRIMARY KEY,

    NAME VARCHAR(50),
```

```
    DEPT_NO NUMBER,

    SALARY NUMBER(7,2));


INSERT INTO EMPLOYEE VALUES(101,'MARK',10,5000.0);

INSERT INTO EMPLOYEE VALUES(102,'DUG',10,5500.0);

INSERT INTO EMPLOYEE VALUES(103,'ALAN',20,6000.0);

INSERT INTO EMPLOYEE VALUES(104,'PETER',30,6200.0);
```

CODE:

```
CREATE OR REPLACE FUNCTION totalRows

RETURN number IS

    total number(2) := 0;

BEGIN

    SELECT count(*) into total

    FROM EMPLOYEE;

    RETURN total;

END;

/


CREATE OR REPLACE FUNCTION highestSalary

RETURN VARCHAR IS

    nameR VARCHAR(50):= '';

BEGIN

    SELECT NAME INTO nameR
```

```
    FROM EMPLOYEE

    WHERE SALARY = (SELECT MAX(SALARY) FROM EMPLOYEE);

    RETURN nameR;

END;

/


DECLARE

    p NUMBER;

    nameR VARCHAR(50);

BEGIN

    p := totalRows;

    nameR := highestSalary;

    dbms_output.put_line('Total Rows in Employee: '||p);

    dbms_output.put_line('Employee with Highest Salary: '||nameR);

END;

/
```

Function HIGHESTSALARY compiled

Total Rows in Employee: 4
Employee with Highest Salary: PETER

PL/SQL procedure successfully completed.

I