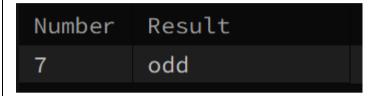# EXERCISE 4

Date: 11/03/2024

PLSQL

Create **PLSQL procedures** and write appropriate **SQL queries** to call the procedures.

1. Write a procedure to check if a number is even or odd.

2. Write a procedure to display the grade for a mark.

3. Write a procedure to check if a number is positive, negative or zero.

4. Write a procedure to display the weekday of a specific day.

5. Write a procedure to find factorial of a number.

1) Even or Odd

```
Number   Result
7        odd
```

2) Grade

```
Marks   Grade
87      Grade is B
```

1) Write a procedure to check if a number is even or odd.

Procedure

```
CREATE PROCEDURE `even_odd`(in num int)
BEGIN
    declare r varchar(10);
    if num%2=0
    then
        set r="even";
    else
        set r="odd";
    end if;
    select num as Number, r as Result;
END
```
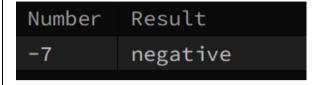
SQL Query

➤ call even_odd(7);

2) Write a procedure to display the grade for a mark.

Procedure

```
CREATE PROCEDURE `grade`(in g int)
BEGIN
    declare des varchar(50);
    if g > 90
    then
        set des="Grade is A";
    elseif g > 80
    then
        set des="Grade is B";
    elseif g > 70
    then
        set des="Grade is C";
    elseif g > 60
    then
        set des="Grade is D";
    else
        set des="Grade is E";
    end if;
    select g as Marks,des as Grade;
END
```

SQL Query

➤ call grade(87);

3) Positive, Negative or Zero

Number	Result
-7	negative

4) WeekDay

Date	WeekDay
03/16/2024	5

3) Write a procedure to check if a number is positive, negative or zero.

Procedure

```
CREATE PROCEDURE `pos_neg_zero`(in num int)
BEGIN
    declare r varchar(10);
    if num >0
    then
        set r= "positive";
    elseif num<0
    then
        set r= "negative";
    else
        set r= "zero";
    end if;
    select num as Number, r as Result;
END
```

SQL Query

➢ call pos_neg_zero (-7);

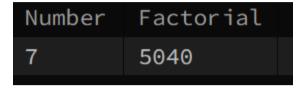**4) Write a procedure to display the weekday of a specific day.**

Procedure

```
CREATE PROCEDURE `day`(in d date)
BEGIN
    declare dat varchar(10);
    set dat=Weekday(d);
    select d as Date, dat as WeekDay;
END
```

SQL Query

➢ call day("2024-3-16");

5) Factorial

```
Number    Factorial
7         5040
```

5) Write a procedure to find factorial of a number.

Procedure

```
CREATE PROCEDURE `fact`(in num int)
BEGIN
    declare f int default 1;
    declare n1 int;
    set n1=num;
    while num >0
    do
        set f=f*num;
        set num=num-1;
    end while;
    select n1 as Number, f as Factorial;
END
```

SQL Query

> ➢ call fact(7);

RESULT: -

Procedure and queries are executed and output is verified.