

Assignment 7

Name: Diptangshu Dey

Roll No: 20CS8018

1. Write a PL/SQL block of code for inverting a number 9635 to 5369.

Solution

Code:

```
CREATE PROCEDURE `Assignment_7`.`Ques_1`()
BEGIN
    DECLARE
        num, rev INT;
    SET num:= 9635;
    SET rev:=0;
    select num;
    WHILE num>0 DO
        SET rev:=(rev*10) + mod(num, 10);
        SET num:=floor(num/10);
    END WHILE;
    SELECT rev;
END
```

Output:

```
MariaDB [Assignment_7]> call Ques_1()
-> ;
+-----+
| num   |
+-----+
| 9635  |
+-----+
1 row in set (0.001 sec)

+-----+
| rev   |
+-----+
| 5369  |
+-----+
1 row in set (0.001 sec)

Query OK, 0 rows affected (0.001 sec)
```

2. Write a PL/SQL block of code to generate fibonacci series.

Solution

Code:

```
CREATE PROCEDURE `Assignment_7`.`Ques_2` (IN n INT(5))
BEGIN
    DECLARE num1, num2, temp INT;
    set num1:=0;
    set num2:=1;
    create table series(num int(5));
    insert into series values (num1), (num2);
    WHILE n>0 DO
        SET temp:=num1+num2;
        set num1:=num2;
        set num2:=temp;
        insert into series values (temp);
        set n := n-1;
    END WHILE;
    select * from series;
END
```

Output:

```
MariaDB [Assignment_7]> call Ques_2(10);
+-----+
| num |
+-----+
| 0 |
| 1 |
| 1 |
| 2 |
| 3 |
| 5 |
| 8 |
| 13 |
| 21 |
| 34 |
| 55 |
| 89 |
+-----+
12 rows in set (0.020 sec)

Query OK, 12 rows affected (0.020 sec)
```

3. Write a PL/SQL block of code to calculate the area of a circle for a value of radius varying from 3 to 7. Store the radius and the corresponding values of calculated area in a table, Areas.

Solution

Code:

```
CREATE PROCEDURE `Assignment_7`.`Ques_3`()
BEGIN
```

```

declare r int;
declare a float;
set r:=3;
create table areas(radius int(5), area float(5));
while r<=7 do
    set a=3.14*r*r;
    insert into areas values (r, a);
    set r:=r+1;
end while;
select * from areas;
END

```

Output:

```

MariaDB [Assignment_7]> call Ques_3();
+-----+-----+
| radius | area  |
+-----+-----+
|      3 | 28.26 |
|      4 | 50.24 |
|      5 | 78.5  |
|      6 | 113.04 |
|      7 | 153.86 |
+-----+-----+
5 rows in set (0.018 sec)

Query OK, 5 rows affected (0.018 sec)

```