Assignment 7

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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:

```sql
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:

```sql
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)
```