SAMARTH ZADBUKE

1. **Write a program containing a loop that iterates from 1 to 1000 using a variable I, which is incremented each time around the loop. The program should output the value of I every hundred iterations (i.e., the output should be 100, 200, etc.).**

```
W2_SAMARTHZADBUKE_87083>CREATE PROCEDURE loopi() BEGIN
    ->     DECLARE i INT DEFAULT 1;
    ->      WHILE i <= 1000  DO          IF i % 100 = 0 THEN
    ->           SELECT i AS iteration;
    ->         END IF;
    ->          SET i = i + 1;
    ->     END WHILE ;END //
Query OK, 0 rows affected (0.01 sec)

W2_SAMARTHZADBUKE_87083>call loopi()//
+-----------+
| iteration |
+-----------+
|       100 |
+-----------+
1 row in set (0.00 sec)

+-----------+
| iteration |
+-----------+
|       200 |
+-----------+
1 row in set (0.02 sec)

+-----------+
| iteration |
+-----------+
|       300 |
+-----------+
1 row in set (0.04 sec)

+-----------+
| iteration |
+-----------+
|       400 |
+-----------+
1 row in set (0.05 sec)

+-----------+
| iteration |
+-----------+
|       500 |
+-----------+
1 row in set (0.07 sec)

+-----------+
| iteration |
+-----------+
|       600 |
+-----------+
```

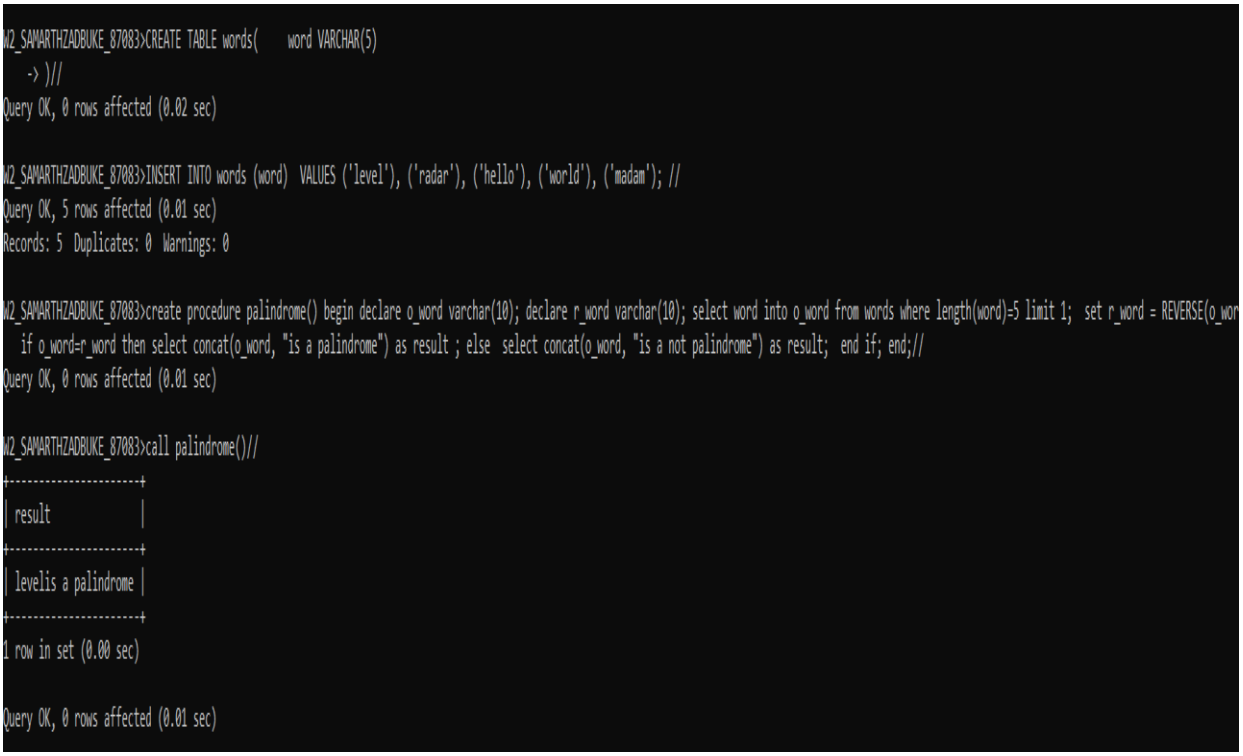
```
+-----------+
| iteration |
+-----------+
|       500 |
+-----------+
1 row in set (0.07 sec)

+-----------+
| iteration |
+-----------+
|       600 |
+-----------+
1 row in set (0.09 sec)

+-----------+
| iteration |
+-----------+
|       700 |
+-----------+
1 row in set (0.10 sec)

+-----------+
| iteration |
+-----------+
|       800 |
+-----------+
1 row in set (0.10 sec)

+-----------+
| iteration |
+-----------+
|       900 |
+-----------+
1 row in set (0.12 sec)

+-----------+
| iteration |
+-----------+
|      1000 |
+-----------+
1 row in set (0.13 sec)

Query OK, 0 rows affected (0.15 sec)

W2_SAMARTHZADBUKE_87083>
```

2.Write a program that Selects from any table a minimum and maximum value for a radius, along with an increment factor, and generates a series of radii by repeatedly adding the increment to the minimum until the maximum is reached. For each value of the radius, compute and display the circumference, area, and volume of the sphere. (Be sure to include both the maximum and the minimum values.).

```
W2_SAMARTHZADBUKE_87083>create table Rinfo(min_radius decimal(10,2),max_radius decimal(10,2),increment decimal(10,2))//
Query OK, 0 rows affected (0.02 sec)

W2_SAMARTHZADBUKE_87083>insert into rinfo (min_radius,max_radius,increment) values (1.0,10.0,1.0)//
Query OK, 1 row affected (0.01 sec)

W2_SAMARTHZADBUKE_87083>create procedure cal() begin declare r decimal(10,2); declare min_r decimal(10,2); declare max_r decimal(10,2); declare inc decimal(10,2);  select min_radius,max_radius,increment into min
_r,max_r,inc from rinfo ; set r= min_r; while r<=max_r do  select  r as radius, (2 * PI() * r) AS circumference, (4 * PI() * r * r) AS area, ((4 / 3) * PI() * r * r * r) AS volume; set r= r+inc; end while; end;/
/
Query OK, 0 rows affected (0.01 sec)

W2_SAMARTHZADBUKE_87083>call cal()//
+--------+---------------+----------+----------+
| radius | circumference | area     | volume   |
+--------+---------------+----------+----------+
|   1.00 |      6.283185 | 12.566371 | 4.188790 |
+--------+---------------+----------+----------+
1 row in set (0.00 sec)

+--------+---------------+----------+----------+
| radius | circumference | area     | volume   |
+--------+---------------+----------+----------+
|   2.00 |     12.566371 | 50.265482 | 33.510322 |
+--------+---------------+----------+----------+
1 row in set (0.03 sec)

+--------+---------------+-----------+-----------+
| radius | circumference | area      | volume    |
+--------+---------------+-----------+-----------+
|   3.00 |     18.849556 | 113.097336 | 113.097336 |
+--------+---------------+-----------+-----------+
1 row in set (0.05 sec)

+--------+---------------+-----------+-----------+
| radius | circumference | area      | volume    |
+--------+---------------+-----------+-----------+
|   4.00 |     25.132741 | 201.061930 | 268.082573 |
+--------+---------------+-----------+-----------+
1 row in set (0.08 sec)

+--------+---------------+-----------+-----------+
| radius | circumference | area      | volume    |
+--------+---------------+-----------+-----------+
|   5.00 |     31.415927 | 314.159265 | 523.598775 |
+--------+---------------+-----------+-----------+
1 row in set (0.11 sec)
```

```
+--------+---------------+-----------+-----------+
| radius | circumference | area      | volume    |
+--------+---------------+-----------+-----------+
|   5.00 |     31.415927 | 314.159265 | 523.598775 |
+--------+---------------+-----------+-----------+
1 row in set (0.11 sec)

+--------+---------------+-----------+-----------+
| radius | circumference | area      | volume    |
+--------+---------------+-----------+-----------+
|   6.00 |     37.699112 | 452.389342 | 904.778684 |
+--------+---------------+-----------+-----------+
1 row in set (0.16 sec)

+--------+---------------+-----------+------------+
| radius | circumference | area      | volume     |
+--------+---------------+-----------+------------+
|   7.00 |     43.982297 | 615.752160 | 1436.755040 |
+--------+---------------+-----------+------------+
1 row in set (0.19 sec)

+--------+---------------+-----------+------------+
| radius | circumference | area      | volume     |
+--------+---------------+-----------+------------+
|   8.00 |     50.265482 | 804.247719 | 2144.660584 |
+--------+---------------+-----------+------------+
1 row in set (0.21 sec)

+--------+---------------+------------+------------+
| radius | circumference | area       | volume     |
+--------+---------------+------------+------------+
|   9.00 |     56.548668 | 1017.876020 | 3053.628059 |
+--------+---------------+------------+------------+
1 row in set (0.24 sec)

+--------+---------------+------------+------------+
| radius | circumference | area       | volume     |
+--------+---------------+------------+------------+
|  10.00 |     62.831853 | 1256.637061 | 4188.790204 |
+--------+---------------+------------+------------+
1 row in set (0.27 sec)

Query OK, 0 rows affected (0.30 sec)

W2_SAMARTHZADBUKE_87083>
```

3 .A palindrome is a word that is spelled the same forward and backward, such as level, radar, etc. Write a program to Selects from any table a five letter word and determine whether it is a palindrome.



```
W2_SAMARTHZADBUKE_87083>CREATE TABLE words(     word VARCHAR(5)
    -> )//
Query OK, 0 rows affected (0.02 sec)

W2_SAMARTHZADBUKE_87083>INSERT INTO words (word)  VALUES ('level'), ('radar'), ('hello'), ('world'), ('madam'); //
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

W2_SAMARTHZADBUKE_87083>create procedure palindrome() begin declare o_word varchar(10); declare r_word varchar(10); select word into o_word from words where length(word)=5 limit 1;  set r_word = REVERSE(o_wor
   if o_word=r_word then select concat(o_word, "is a palindrome") as result ; else  select concat(o_word, "is a not palindrome") as result;  end if; end;//
Query OK, 0 rows affected (0.01 sec)

W2_SAMARTHZADBUKE_87083>call palindrome()//
+--------------------+
| result             |
+--------------------+
| levelis a palindrome |
+--------------------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)
```