CSE2007 : Database Management Systems

Name : Gudi Varaprasad

Reg. No. : 19BCE7048

School of Computer Science and Engineering

Lab Slot : L45 + L46

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Submitted to : Ms. Dhanavanthini madam

PL / SQL Programming

SQL > set serveroutput on

1. Write PL/SQL code for finding Even Numbers.

```
SQL> declare
  2  n number :=&n;
  3  begin
  4  if mod(n,2)=0
  5  then
  6  dbms_output.put_line('Entered number is even');
  7  end if;
  8  end;
  9  /
Enter value for n: 256
old   2: n number :=&n;
new   2: n number :=256;
Entered number is even

PL/SQL procedure successfully completed.
```

2. Write PL/SQL code to find Largest of three numbers.

```
SQL> declare
  2  num1 number :=&num1;
  3  num2 number :=&num2;
  4  num3 number :=&num3;
  5  begin
  6  if num1>num2 and num1>num3 then
  7  dbms_output.put_line(num1||' is greater.');
  8  elsif num2>num1 and num2>num3 then
  9  dbms_output.put_line(num2||' is greater.');
 10  else
 11  dbms_output.put_line(num3||' is greater.');
 12  end if;
 13  end;
 14  /
Enter value for num1: 13
old   2: num1 number :=&num1;
new   2: num1 number :=13;
Enter value for num2: 6
old   3: num2 number :=&num2;
new   3: num2 number :=6;
Enter value for num3: 18
old   4: num3 number :=&num3;
new   4: num3 number :=18;
18 is greater.

PL/SQL procedure successfully completed.
```


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3. Write PL/SQL code to find Factorial of a given number.

```
SQL> declare
  2  n number;
  3  fact number :=1;
  4  i number;
  5  begin
  6  n :=&n;
  7  for i in 1..n
  8  loop
  9  fact :=fact*i;
 10  end loop;
 11  dbms_output.put_line('Factorial for '||n||' is = '||fact);
 12  end;
 13  /
Enter value for n: 4
old   6: n :=&n;
new   6: n :=4;
Factorial for 4 is = 24

PL/SQL procedure successfully completed.
```

4. Write PL/SQL code to Read number and prints its Multiplication Table.

```
SQL> declare
  2  n number;
  3  i number;
  4
  5  begin
  6  n:=&n;
  7
  8  for i in 1..10
  9  loop
 10  dbms_output.put_line(n||' x '||i||' = '||n*i);
 11  end loop;
 12  end;
 13  /
Enter value for n: 7
old   6: n:=&n;
new   6: n:=7;
7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70

PL/SQL procedure successfully completed.
```


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5. Write PL/SQL code to find given number is Prime or not.

```
SQL> declare
  2  n number;
  3  i number;
  4  flag number;
  5
  6  begin
  7  i:=2;
  8  flag:=1;
  9  n:=&n;
 10
 11  for i in 2..n/2
 12  loop
 13  if mod(n,i)=0
 14  then
 15  flag:=0;
 16  exit;
 17  end if;
 18  end loop;
 19
 20  if flag=1
 21  then
 22  dbms_output.put_line('Entered number '||n||' is prime.');
 23  else
 24  dbms_output.put_line('Entered number '||n||' is not a prime.');
 25  end if;
 26  end;
 27  /
Enter value for n: 31
old   9: n:=&n;
new   9: n:=31;
Entered number 31 is prime.

PL/SQL procedure successfully completed.
```

6. Write PL/SQL code to accept the text and reverse the text and test whether the given character is Palindrome or not.

```
SQL> DECLARE
  2  string varchar2(50):='&string';
  3  counter int:=length(string);
  4  BEGIN
  5  LOOP exit
  6  WHEN counter=0;
  7  exit
  8  WHEN not(substr(string,counter,1)=substr(string,((length(string)+1)-counter),1));
  9  counter:=counter-1;
 10  END LOOP;
 11  IF counter=0 THEN dbms_output.put_line(string||' is a Palindrome.');
 12  ELSE dbms_output.put_line(string||' is not a Palindrome.');
 13  END IF;
 14  END;
 15  /
Enter value for string: MALAYALAM
old   2: string varchar2(50):='&string';
new   2: string varchar2(50):='MALAYALAM';
MALAYALAM is a Palindrome.

PL/SQL procedure successfully completed.
```


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```
SQL> DECLARE
  2  string varchar2(50):='&string';
  3  counter int:=length(string);
  4  BEGIN
  5  LOOP exit
  6  WHEN counter=0;
  7  exit
  8  WHEN not(substr(string,counter,1)=substr(string,((length(string)+1)-counter),1));
  9  counter:=counter-1;
 10  END LOOP;
 11  IF counter=0 THEN dbms_output.put_line(string||' is a Palindrome.');
 12  ELSE dbms_output.put_line(string||' is not a Palindrome.');
 13  END IF;
 14  END;
 15  /
Enter value for string: VARAPRASAD GUDI
old   2: string varchar2(50):='&string';
new   2: string varchar2(50):='VARAPRASAD GUDI';
VARAPRASAD GUDI is not a Palindrome.

PL/SQL procedure successfully completed.
```

7. Write PL/SQL code to find Reverse of a given number.

```
SQL> declare
  2  n number;
  3  i number;
  4  rev number:=0;
  5  r number;
  6  begin
  7  n:=&n;
  8  dbms_output.put_line('Entered Original number = '||n);
  9  while n>0
 10  loop
 11  r:=mod(n,10);
 12  rev:=(rev*10)+r;
 13  n:=trunc(n/10);
 14  end loop;
 15  dbms_output.put_line('After reversing the number = '||rev);
 16  end;
 17  /
Enter value for n: 1234567
old   7: n:=&n;
new   7: n:=1234567;
Entered Original number = 1234567
After reversing the number = 7654321

PL/SQL procedure successfully completed.
```