DBMS Lab - 5

Academic year: 2021-2022 **Semester:** Long Sem

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Assignment – 5

Implement the following programs in PL/SQL

```
Run SQL Command Line

SQL*Plus: Release 10.2.0.1.0 - Production on Thu Jul 21 22:40:52 2022

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SQL>
SQL> connect
Enter user-name: system
Enter password:
Connected.
```

```
SQL>
SQL> set serveroutput on;
```

1. Hello World Program in PL/SQL

```
SQL>
SQL> ed hello.sql
```

hello - Notepad

File Edit Format View Help

```
begin
dbms_output.put_line('Hello World, Iam Taran');
dbms_output.put_line('19BCE7346');
end;
/
```

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```
SQL> start hello.sql
Hello World, Iam Taran
19BCE7346

PL/SQL procedure successfully completed.
```

2. PL/SQL Program To Add Two Numbers

```
SQL> ed add_num.sql

SQL> start add_num.sql
Enter value for var1: 5892345
old   6: Var1:=&var1;
new   6: Var1:=5892345;
Enter value for var2: 23154
old   7: Var2:=&var2;
new   7: Var2:=23154;
5915499

PL/SQL procedure successfully completed.
```

add_num - Notepad

File Edit Format View Help

```
Declare
Var1 integer;
Var2 integer;
Var3 integer;
Begin
Var1:=&var1;
Var2:=&var2;
Var3:=var1+var2;
Dbms_output.put_line(var3);
End;
/
```

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3. PL/SQL Program for Prime Number

```
SQL> ed prime_num.sql

SQL> start prime_num.sql
Enter value for n: 3497
old   9: n:=&n;
new   9: n:=3497;
not prime

PL/SQL procedure successfully completed.
```

prime_num - Notepad

File Edit Format View Help

```
declare
n number;
i number;
flag number;

begin
i:=2;
flag:=1;
n:=&n;

for i in 2..n/2
loop
if mod(n,i)=0
then
flag:=0;
exit;
```

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```
SQL> start prime_num.sql
Enter value for n: 271
old   9: n:=&n;
new   9: n:=271;
prime

PL/SQL procedure successfully completed.
```

```
SQL> start prime_num.sql
Enter value for n: 79
old   9: n:=&n;
new   9: n:=79;
prime

PL/SQL procedure successfully completed.
```

4. PL/SQL Program to Find Factorial of a Number

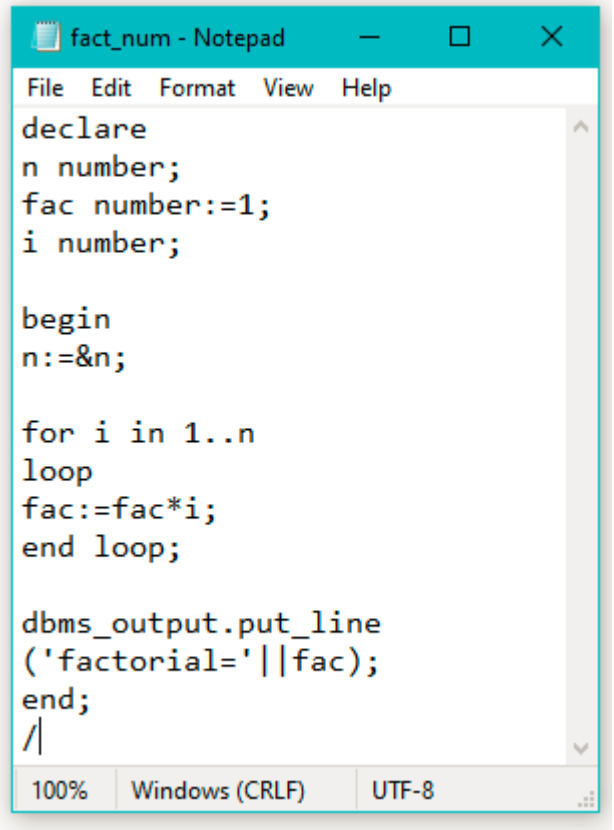
```
SQL> ed fact_num.sql

SQL> start fact_num.sql
Enter value for n: 6
old   7: n:=&n;
new   7: n:=6;
factorial=720

PL/SQL procedure successfully completed.
```

```
SQL> start fact_num.sql
Enter value for n: 12
old   7: n:=&n;
new   7: n:=12;
factorial=479001600

PL/SQL procedure successfully completed.
```



5. PL/SQL Program to Print Table of a Number

```
SQL> ed print_table.sql

SQL> start print_table.sql
Enter value for n: 8
old   6: n:=&n;
new   6: n:=8;
8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
8 x 9 = 72
8 x 10 = 80

PL/SQL procedure successfully completed.
```

print_table - ...

File Edit Format View Help

```
declare
n number;
i number;

begin
n:=&n;
for i in 1..10
loop
dbms_output.put_line
(n||' x '||i||' = '||
n*i);
end loop;
end;
```

Windows (CRLF) UTF-8

6. PL/SQL Program for Reverse of a Number

```
SQL> ed rev_num.sql

SQL> start rev_num.sql
Enter value for n: 123456
old   8: n:=&n;
new   8: n:=123456;
reverse is 654321

PL/SQL procedure successfully completed.
```

```
SQL> start rev_num.sql
Enter value for n: 9472840126
old   8: n:=&n;
new   8: n:=9472840126;
reverse is 6210482749

PL/SQL procedure successfully completed.
```

rev_num - N...

File Edit Format View Help

```
declare
n number;
i number;
rev number:=0;
r number;

begin
n:=&n;
while n>0
loop
r:=mod(n,10);
rev:=(rev*10)+r;
n:=trunc(n/10);
end loop;

dbms_output.put_line
('reverse is '||rev);
end;
/
```

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7. PL/SQL Program for Fibonacci Series

```
SQL> start fibno.sql
Enter value for n: 12
old   5: n number:=&n;
new   5: n number:=12;
Fibonacci series is:
0
1
1
2
3
5
8
13
21
34
55
89
144
```

fibno - Note...

File Edit Format View Help

```
begin
dbms_output.put_line
('Fibonacci series
is:');
dbms_output.put_line
(first);
dbms_output.put_line
(second);

for i in 2..n
loop
third:=first+second;
first:=second;
second:=third;
dbms_output.put_line
(third);
end loop;
end;
/
```

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8. PL/SQL Procedure to Check Number is Odd or Even

```
SQL> ed check_o/e_num.sql

SQL> ed check_OddEven_num.sql

SQL> start check_OddEven_num.sql
Enter value for n: 78
old   2: n number:=&n;
new   2: n number:=78;
number is even

PL/SQL procedure successfully completed.
```

```
SQL> start check_OddEven_num.sql
Enter value for n: 65
old   2: n number:=&n;
new   2: n number:=65;
number is odd

PL/SQL procedure successfully completed.
```

check...

File Edit Format View Help

```
declare
n number:=&n;

begin
if mod(n,2)=0
then
dbms_output.put_line
('number is even');
else
dbms_output.put_line
('number is odd');
end if;
end;
/
```

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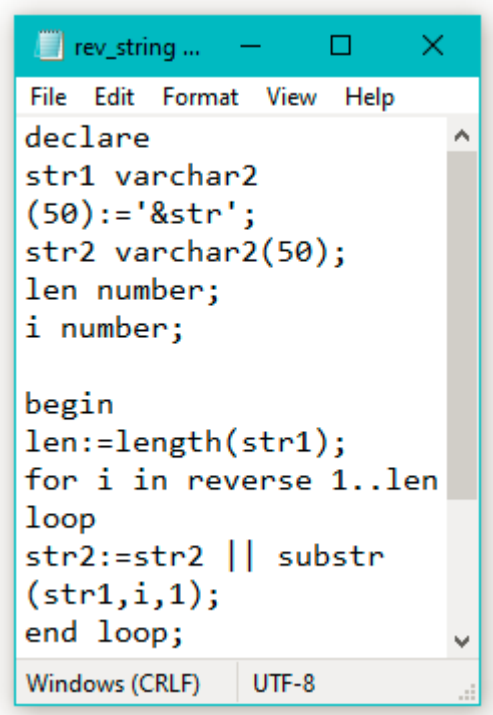
9. PL/SQL Function to Reverse a String

```
declare
str1 varchar2(50):='&str';
str2 varchar2(50);
len number;
i number;

begin
len:=length(str1);
for i in reverse 1..len
loop
str2:=str2 || substr(str1,i,1);
end loop;
dbms_output.put_line('Reverse of String
is:'||str2);
end;
/
```




```
SQL> ed rev_string.sql

SQL> start rev_string.sql
Enter value for str: narat
old   2: str1 varchar2(50):='&str';
new   2: str1 varchar2(50):='narat';
Reverse of String is:taran

PL/SQL procedure successfully completed.
```

```
SQL> start rev_string.sql
Enter value for str: raghuvaran
old   2: str1 varchar2(50):='&str';
new   2: str1 varchar2(50):='raghuvaran';
Reverse of String is:naravuhgar

PL/SQL procedure successfully completed.
```