PLSQL PROGRAMS

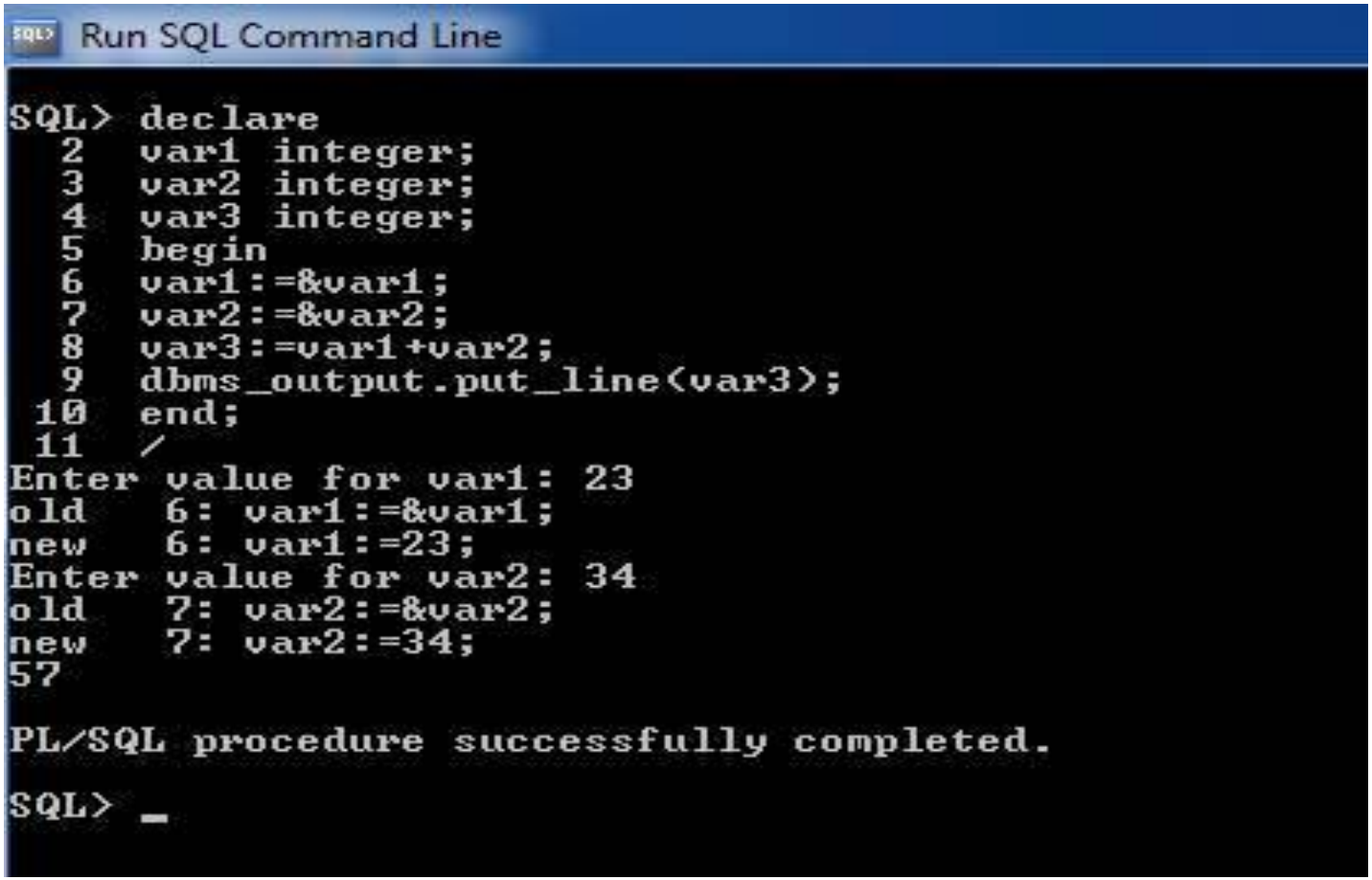
Hello World Program in PL/SQL

```
begin
dbms_output.put_line('Hello World');
end;
/
```

- **Output**
  Hello World
  PL/SQL procedure successfully completed.

PL/SQL Program To Add Two Numbers

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


Run SQL Command Line
SQL> declare
2 var1 integer;
3 var2 integer;
4 var3 integer;
5 begin
6 var1:=&var1;
7 var2:=&var2;
8 var3:=var1+var2;
9 dbms_output.put_line(var3);
10 end;
11 /
Enter value for var1: 23
old 6: var1:=&var1;
new 6: var1:=23;
Enter value for var2: 34
old 7: var2:=&var2;
new 7: var2:=34;
57
PL/SQL procedure successfully completed.
SQL> _

- **PL/SQL Program for Prime Number**

```
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;
   end if;
 end loop;
    if flag=1
   then
      dbms_output.put_line('prime');
   else
      dbms_output.put_line('not prime');
   end if;
end;
/
```

PL/SQL Program to Find Factorial of a Number

```
declare
   n number;
   fac number:=1;
   i number;

begin
   n:=&n;

   for i in 1..n
   loop
      fac:=fac*i;
   end loop;

   dbms_output.put_line('factorial='||fac);
end;
/
```

Output

Enter value for n: 10
old 7: n:=&n;
new 7: n:=10;
factorial=3628800

PL/SQL Program to Print Table of a Number

```
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;
/
```

PL/SQL Program for Reverse of a Number

```
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;
/
```

PL/SQL Program for Fibonacci Series

```
declare
   first number:=0;
   second number:=1;
   third number;
   n number:=&n;
   i number;

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;
/
```

PL/SQL Program to Check Number is Odd or Even

```
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;
/
```

Output

Enter value for n: 7
old 2: n number:=&n;
new 2: n number:=7;
number is odd

PL/SQL Program 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;
/
```

Output

Enter value for str: hello world
old 2: str1 varchar2(50):='&str';
new 2: str1 varchar2(50):='hello world';
Reverse of String is:dlrow olleh

Pl/SQL Program for Palindrome Number

```
declare
   n number;
   m number;
   rev number:=0;
   r number;
begin
   n:=12321;
   m:=n;

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

   if m=rev
   then
      dbms_output.put_line('number is palindrome');
   else
      dbms_output.put_line('number is not palindrome');
   end if;
end;
/
```

Output

number is palindrome

PL/SQL Program to Swap two Numbers

```
declare
   a number;
   b number;
   temp number;

begin
   a:=5;
   b:=10;

   dbms_output.put_line('before swapping:');
   dbms_output.put_line('a='||a||' b='||b);

   temp:=a;
   a:=b;
   b:=temp;

   dbms_output.put_line('after swapping:');
   dbms_output.put_line('a='||a||' b='||b);

end;
/
```

Output

before swapping:
a=5 b=10
after swapping:

PL/SQL Program for Armstrong Number

```
declare
   n number:=407;
   s number:=0;
   r number;
   len number;
   m number;
begin
   m:=n;

   len:=length(to_char(n));

   while n>0
   loop
      r:=mod(n,10);
      s:=s+power(r,len);
      n:=trunc(n/10);
   end loop;

   if m=s
   then
      dbms_output.put_line('armstrong number');
   else
      dbms_output.put_line('not armstrong number');
   end if;

end;
/
```

Output

armstrong number

PL/SQL Program to Find Greatest of Three Numbers

```
declare
   a number:=10;
   b number:=12;
   c number:=5;
begin
   dbms_output.put_line('a='||a||' b='||b||' c='||c);
   if a>b AND a>c
   then
      dbms_output.put_line('a is greatest');
   else
      if b>a AND b>c
      then
         dbms_output.put_line('b is greatest');
      else
         dbms_output.put_line('c is greatest');
      end if;
   end if;
end;
/
```

Output

a=10 b=12 c=5
b is greatest

PL/SQL Program to Print Patterns

```
declare
   n number:=5;
   i number;
   j number;
begin
   for i in 1..n
   loop
      for j in 1..i
      loop
         dbms_output.put('*');
      end loop;

      dbms_output.new_line;
   end loop;
end;
/
```

```
*****
****
***
**
*
```