# ADBMS LAB ASSIGNMENT-1

**ANUSHKA SINGH**

**15070121109**

**AIM:** Write and implement simple PL/SQL programs using declare, begin and end statements.

**Q1) Write and Implement PL/SQL code to swap two numbers.**

```
declare
a number;
b number;

begin
a:=:a;
b:=:b;

dbms_output.put_line('Original numbers are:'||a||' '||b);

a:=a+b;
b:=a-b;
a:=a-b;

dbms_output.put_line('Swapped numbers are:'||a||' '||b);
end;
```

**Results**   Explain   Describe   Saved SQL   History

```
Original numbers are:2 5
Swapped numbers are:5 2

Statement processed.

0.12 seconds
```

**Q2) Write and implement PLSQL code to find students first name and last name from student table and print it on the screen.**

☑ Autocommit   Display 10 ⌄

```
create table Student153 (
rollNumber int Primary Key,        Table created.
firstName char(20),
lastName char(20)
);                                 0.40 seconds
```

```
insert into Student15 values (1000, 'John', 'Wick');
insert into Student15 values (2000, 'James', 'Bond');
insert into Student15 values (3000, 'Ethan', 'Hunt');
```

```
Declare
        fname char(20);
        lname char(20);
Begin
        Select firstname, lastname into  fname, lname from Student15 where rollNumber = 107;
        DBMS_OUTPUT.PUT_LINE(' Student name :'|| fname ||''|| lname );
Exception
        When No DATA FOUND THEN
        DBMS_OUTPUT.PUT_LINE(' There is no student with  '||  ' student ');
End;
```

OUTPUT:

**Results**   Explain   Describe   Saved SQL   History

Student name :John                    Wick

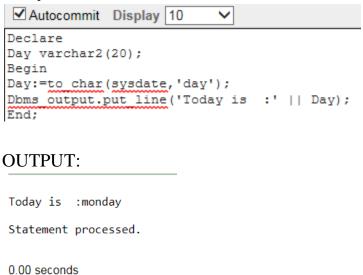Statement processed.

0.02 seconds

## Q3) Write and implement PL/SQL code to calculate power of the number.

```
declare
vnum number;
vpower number;
vresult number;

begin

vnum:=:vnum;
vpower:=:vpower;
vresult:=power(vnum,vpower);
dbms_output.put_line('Power of number is:'|| vresult);

end;
```

**Results**   Explain   Describe   Saved SQL   History

Power of number is:32

Statement processed.

0.01 seconds

**Q4) Write and implement PL/SQL code to determine day of week based on today's date.**

```
☑ Autocommit  Display 10    ⌄

Declare
Day varchar2(20);
Begin
Day:=to_char(sysdate,'day');
Dbms_output.put_line('Today is   :' || Day);
End;
```

OUTPUT:

```
Today is   :monday

Statement processed.


0.00 seconds
```

**Q5) Write and Implement PL/SQL code to print number 10 to 5 using simple loop, while loop and for loop.**

**using simple loop:**

```
declare
vnum number:=11;

begin

loop
vnum:=vnum-1;
dbms_output.put_line('Number is:'|| vnum);
exit when vnum<=5;
end loop;

end;
```

**Results** Explain Describe Saved SQL History

```
Number is:10
Number is:9
Number is:8
Number is:7
Number is:6
Number is:5

Statement processed.


0.00 seconds
```

## using while loop:

```
declare
vnum number:=10;

begin

while vnum>=5 loop

dbms_output.put_line('Number is:'|| vnum);
vnum:=vnum-1;
end loop;

end;
```

**Results**   Explain   Describe   Saved SQL   Histor

```
Number is:10
Number is:9
Number is:8
Number is:7
Number is:6
Number is:5

Statement processed.
```

## using for loop

```
declare
vnum number;

begin

for vnum in reverse 5..10 loop
dbms_output.put_line('Number is:'|| vnum);
end loop;

end;
```
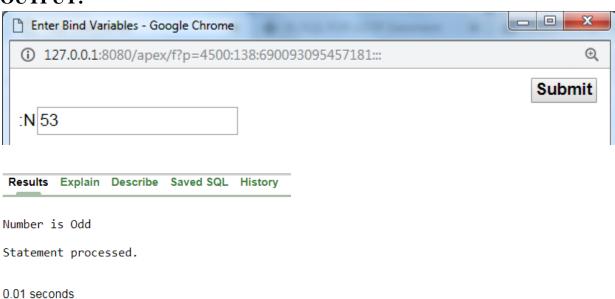
**Results**   Explain   Describe   Saved SQL   Histo

```
Number is:10
Number is:9
Number is:8
Number is:7
Number is:6
Number is:5

Statement processed.
```

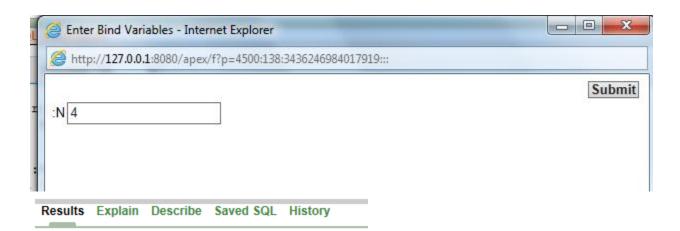## Q6) Write and Implement PL/SQL code to print the given number is even or odd.

```
☑ Autocommit  Display 10    ⌄
/*Check whether the number is even or odd*/
Declare
   num number;
Begin
  num:= :n;

   if mod(num,2)=0
   then
dbms_output.put_line('Number is Even');
   else
dbms_output.put_line('Number is Odd');
   end if;
 End;
```

## OUTPUT:

```
┌──────────────────────────────────────────────────────────────────┐
│ 📄 Enter Bind Variables - Google Chrome           ─ ⧉ ✕           │
├──────────────────────────────────────────────────────────────────┤
│ ⓘ 127.0.0.1:8080/apex/f?p=4500:138:690093095457181:::        ⊕   │
│                                                                    │
│                                                        Submit      │
│                                                                    │
│  :N 53                                                             │
│                                                                    │
└──────────────────────────────────────────────────────────────────┘
```

**Results  Explain  Describe  Saved SQL  History**

Number is Odd

Statement processed.

0.01 seconds

## Q7) Write and Implement PL/SQL code to find factorial of the number.

```
Autocommit  Display 10      ∨
Declare
    num number;
    factorial number;
Begin
    num:= :n;
    factorial:= 1;
     for i in 1 .. num
     LOOP
     factorial := factorial * i;
  end loop;
dbms_output.put_line('Factorial of Number is : ==> '|| Factorial);
 End;
```

OUTPUT:

Enter Bind Variables - Internet Explorer

http://127.0.0.1:8080/apex/f?p=4500:138:3436246984017919:::

Submit

:N 4

**Results**  Explain  Describe  Saved SQL  History

Factorial of Number is : ==> 24

Statement processed.

0.00 seconds