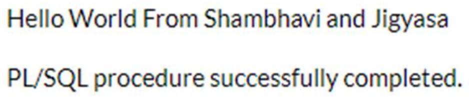
Practical 9 **Date: 03/10/2023**

Aim: To Practice PL/SQL Commands.

Code: Basics: Syntax, Comments, Variable Attributes, Conditionals: IF-THEN-ELSE, Case, Loops – For, While

❖ **Syntax**

```
DECLARE
  message  varchar2(20):= 'Hello, World! From Shambhavi and Jigyasa';
BEGIN
  dbms_output.put_line(message);
END;
/
```

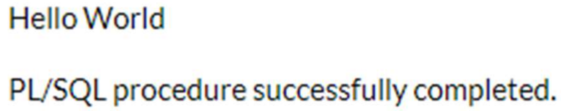


```
Hello World From Shambhavi and Jigyasa

PL/SQL procedure successfully completed.
```

❖ **Comments**

```
DECLARE
  -- variable declaration
  message  varchar2(20):= 'Hello, World!';
BEGIN
  /*
  *  PL/SQL executable statement(s)
  */
  dbms_output.put_line(message);
END;
/
```

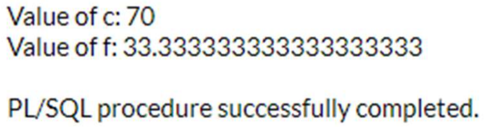


```
Hello World

PL/SQL procedure successfully completed.
```

❖ **Example**

```
DECLARE
  a integer := 30;
  b integer := 40;
  c integer;
  f real;
BEGIN
  c := a + b;
  dbms_output.put_line('Value of c: ' || c);
  f := 100.0/3.0;
  dbms_output.put_line('Value of f: ' || f);
END;
```



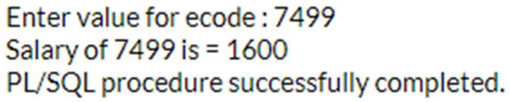
```
Value of c: 70
Value of f: 33.333333333333333333

PL/SQL procedure successfully completed.
```

❖ Variable Attributes

% TYPE

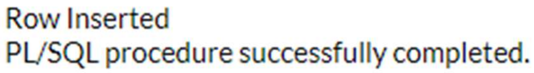
```
DECLARE
SALARY EMP.SAL % TYPE;
ECODE EMP.empno % TYPE;
BEGIN
Ecode :=&Ecode;
Select SAL into SALARY from EMP where EMPNO = ECODE;
dbms_output.put_line('Salary of ' || ECODE || 'is = || salary');
END;
```



```
Enter value for ecode : 7499
Salary of 7499 is = 1600
PL/SQL procedure successfully completed.
```

%ROWTYPE

```
DECLARE
EMPLOYEE EMP. % ROW TYPE;
BEGIN
EMPLOYEE.EMPNO := 2092;
5   EMPLOYEE.ENAME := 'Sanju';
Insert into EMP where (EMPNO, ENAME) Values (employee.empno, employee.ename);
dbms_output.put_line('Row Inserted');
END;
```

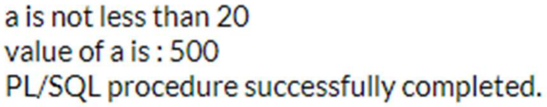


```
Row Inserted
PL/SQL procedure successfully completed.
```

❖ Conditionals

1) IF -THEN-ELSE

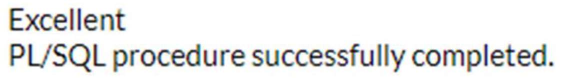
```
DECLARE
  a number(3) := 500;
BEGIN
  -- check the boolean condition using if statement
  IF( a < 20 ) THEN
     -- if condition is true then print the following
     dbms_output.put_line('a is less than 20 ' );
  ELSE
     dbms_output.put_line('a is not less than 20 ' );
  END IF;
  dbms_output.put_line('value of a is : ' || a);
END;
```



```
a is not less than 20
value of a is : 500
PL/SQL procedure successfully completed.
```

2) CASE

```
DECLARE
   grade char(1) := 'A';
BEGIN
   CASE grade
      when 'A' then dbms_output.put_line('Excellent');
      when 'B' then dbms_output.put_line('Very good');
      when 'C' then dbms_output.put_line('Good');
      when 'D' then dbms_output.put_line('Average');
      when 'F' then dbms_output.put_line('Passed with Grace');
      else dbms_output.put_line('Failed');
   END CASE;
END;
```

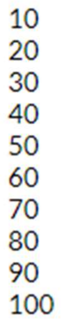


```
Excellent
PL/SQL procedure successfully completed.
```

❖ Loop

1) FOR

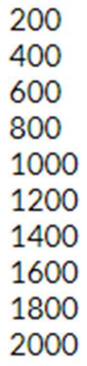
```
DECLARE
VAR1 NUMBER;
BEGIN
VAR1:=10;
FOR VAR2 IN 1..10
LOOP
DBMS_OUTPUT.PUT_LINE (VAR1*VAR2);
END LOOP;
END;
```



```
10
20
30
40
50
60
70
80
90
100
```

2) WHILE

```
DECLARE
VAR1 NUMBER;
VAR2 NUMBER;
BEGIN
VAR1:=200;
VAR2:=1;
WHILE (VAR2<=10)
LOOP
DBMS_OUTPUT.PUT_LINE (VAR1*VAR2);
VAR2:=VAR2+1;
END LOOP;
END;
```



```
200
400
600
800
1000
1200
1400
1600
1800
2000
```