PL/SQL installation:

Variables in PL/SQL
As we have done earlier in postgreSQL.

First PLSQL program

```
set serveroutput on;

declare

vtext varchar(100);

begin
vtext:='Hello World';
dbms_output.put_line(vtext);

end;
```

```
Statement processed.
Hello World
```

```
declare
vnumber binary_float:=50.25;
begin
dbms_output.put_line(vnumber||' is a float Number');
end;
```

```
Statement processed.
5.025E+001 is a float Number
```

Doing all datatypes with the plsql as examples:

```
declare
vdate date:=sysdate;
begin
dbms_output.put_line(vdate||' today date');
end;
```

```
Statement processed.
20-DEC-23 today date
```

```
Declare
vtimestamp timestamp:=systimestamp;
begin
dbms_output.put_line(vtimestamp||' Current TimeStamp');
end;
Statement processed.
20-DEC-23 08.37.28.628500 AM Current TimeStamp
```

A syntax for all data type implementation in PLSQL

```
----------------------====================----------------------
----------------------DECLARING VARIABLES----------------------
----------------------====================----------------------
SET SERVEROUTPUT ON;
DECLARE
   v varchar2(20) := 2 + 25 * 3;
BEGIN
   dbms_output.put_line(v);
END;
----------------------====================----------------------
DECLARE
   v_text varchar2(50) NOT NULL DEFAULT 'Hello';
   v_number1 number := 50;
   v_number2 number(2) := 50.42;
   v_number3 number(10,2) := 50.42;
   v_number4 PLS_INTEGER := 50;
   v_number5 BINARY_float := 50.42;
   v_DATE1 DATE := '22-NOV-18 12:01:32';
   v_DATE2 timestamp := systimestamp;
   v_DATE3 timestamp(9) WITH TIME ZONE := systimestamp;
   v_DATE4 interval day(4) to second (3) := '124 02:05:21.012 ';
   v_DATE5 interval year to month := '12-3';
BEGIN
   V_TEXT := 'PL/SQL' || 'Course';
   DBMS_OUTPUT.PUT_LINE(V_TEXT);
   DBMS_OUTPUT.PUT_LINE(v_number1);
   DBMS_OUTPUT.PUT_LINE(v_number2);
   DBMS_OUTPUT.PUT_LINE(v_number3);
   DBMS_OUTPUT.PUT_LINE(v_number4);
   DBMS_OUTPUT.PUT_LINE(v_number5);
   DBMS_OUTPUT.PUT_LINE(v_DATE1);
   DBMS_OUTPUT.PUT_LINE(v_DATE2);
   DBMS_OUTPUT.PUT_LINE(v_DATE3);
   DBMS_OUTPUT.PUT_LINE(v_DATE4);
   DBMS_OUTPUT.PUT_LINE(v_DATE5);
   END;
----------------=====================================---------------
----------------USING BOOLEAN DATA TYPE in PL/SQL----------------
----------------=====================================---------------
DECLARE
   v_boolean boolean := true;
BEGIN
   dbms_output.put_line(sys.diutil.bool_to_int(v_boolean));
END;
----------------=====================================---------------
```

%Type Attribute:

```
declare
v_empid hr.employees.employee_id%type;
v_empfname hr.employees.first_name%type;
v_emplname hr.employees.last_name%type;

begin
dbms_output.put_line(v_empid||' is datatype for id');
dbms_output.put_line(v_empfname||' is datatype for fname');
dbms_output.put_line(v_emplname||' is datatype for lname');
end;
```

```
Statement processed.
is datatype for id
is datatype for fname
is datatype for lname
```

```
begin <<outer>>
DECLARE
  --v_outer VARCHAR2(50) := 'Outer Variable!';
  v_text  VARCHAR2(20) := 'Out-text';
BEGIN
  DECLARE
    v_text  VARCHAR2(20) := 'In-text';
    v_inner VARCHAR2(30) := 'Inner Variable';
  BEGIN
```

```
    --dbms_output.put_line('inside -> ' || v_outer);
    --dbms_output.put_line('inside -> ' || v_inner);
      dbms_output.put_line('inner -> ' || v_text);
      dbms_output.put_line('outer -> ' || outer.v_text);
  END;
  --dbms_output.put_line('inside -> ' || v_inner);
  --dbms_output.put_line(v_outer);
  dbms_output.put_line(v_text);
END;
END outer;
Statement processed.
inner -> In-text
outer -> Out-text
Out-text
```

```
--- to check odd or even
declare

v_no number:=10;
r number;
begin
r:=mod(v_no,2);
if r=0 then
      dbms_output.put_line('Even');
else
      dbms_output.put_line('Odd');
end if;

end;
Statement processed.
Even
```

```
declare
v_num number(2):=1;
begin
 loop
  dbms_output.put_line('Count: '||v_num);
  v_num:=v_num+1;
 exit when v_num=12;
end loop;
end;

Statement processed.
Count: 1
Count: 2
Count: 3
```

```
Count: 4
Count: 5
Count: 6
Count: 7
Count: 8
Count: 9
Count: 10
Count: 11
```