**PL/SQL**

**Program 1:**

serveroutput on;

begin

dbms\_output.put\_line('Welcome to PL/SQl');

end;

O/P :

Welcome to PL/SQl

**Program 2 :**

declare

a number(10) := 10;

begin

dbms\_output.put\_line('Welcome to PL/SQl');

dbms\_output.put\_line(a);

dbms\_output.put\_line('The value of a is : ' || a);

end;

**O/P:**

Welcome to PL/SQl

10

The value of a is : 10

**Program 3:**

declare

empId number(10) := 10;

empName varchar2(20) := 'Abhi';

empDesg varchar2(40) := 'Software Development Trainee';

joinDate DATE := '12-Mar-2018';

empSal decimal(7,2) := 12500.00;

begin

dbms\_output.put\_line('Employee Details');

dbms\_output.put\_line('Name : ' || empName);

dbms\_output.put\_line('Id : ' || empId);

dbms\_output.put\_line('Designation : ' || empDesg);

dbms\_output.put\_line('Join Date : ' || joinDate);

dbms\_output.put\_line('Join Date : ' || to\_char(joinDate,'dd-MM-yyyy'));

dbms\_output.put\_line('Salary : ' || empSal);

end;

**O/P:**

Employee Details

Name : Abhi

Id : 10

Designation : Software Development Trainee

Join Date : 12-MAR-18

Join Date : 12-03-2018

Salary : 12500

**Program 4 :**

declare

empId number := 10;

empName varchar2(20) := 'Ram';

empDesg varchar2(40) := 'Developer';

empSal number := 12500;

begin

insert into EMPLOYEE39810 values (empId,empName, empdesg, empSal);

insert into EMPLOYEE39810 values (11,'Subbu','Tester',20000);

dbms\_output.put\_line('Inserted successfully');

end;

**O/P:**

Inserted successfully

**Program 5 :**

declare

empId number := 10;

empName varchar2(20) := 'Ram';

empDesg varchar2(40) := 'Developer';

empSal number := 12500;

begin

delete from EMPLOYEE39810 where empid=122;

update EMPLOYEE39810 set EMPDESG='Developer' where empid=21;

dbms\_output.put\_line('Updated and Deleted Succesfully');

end;

**O/P:**

Updated and Deleted Succesfully

**Program 6 :**

declare

ename varchar2(40);

begin

select empname into ename from EMPLOYEE39810 where empid=10;

dbms\_output.put\_line('Name is : ' || ename);

end;

**O/P:**

Name is : Ram

**Variable Anchors**

**Program 7 :**

declare

ename EMPLOYEE39810.empname%type;

begin

select empname into ename from EMPLOYEE39810 where empid=10;

dbms\_output.put\_line('Name is : ' || ename);

end;

**O/P:**

Name is : Ram

**Program 8 :**

declare

a number(10) := 100;

b number(10) := 25;

begin

if a > 50 and b > 10 then

dbms\_output.put\_line('If satisfied');

else

dbms\_output.put\_line('Else Condition entered');

end if;

end;

**O/P:**

'If satisfied'

**Program 9 :**

declare

average number(10,2) := 60;

begin

if average>=90 then

dbms\_output.put\_line('A+ Grade');

elsif average>=80 then

dbms\_output.put\_line('A Grade');

elsif average>=65 then

dbms\_output.put\_line('B Grade');

else

dbms\_output.put\_line('C Grade');

end if;

end;

**O/P:**

C Grade

**Obtain Input from user :**

**Program 10 :**

declare

average number(10,2) := &n1;

begin

if average>=90 then

dbms\_output.put\_line('A+ Grade');

elsif average>=80 then

dbms\_output.put\_line('A Grade');

elsif average>=65 then

dbms\_output.put\_line('B Grade');

else

dbms\_output.put\_line('C Grade');

end if;

end;

**O/P:**

'C Grade'

**While Loop :**

**Program 11:**

declare

i number(10) := 1;

n number(10) := 10;

begin

while i<n loop

dbms\_output.put\_line(i);

i:=i+1;

end loop;

end;

**o/P:**

1

2

3

4

5

6

7

8

9

**Do While**

**Program 12 :**

declare

i number(10) := 1;

n number(10) := 10;

begin

loop

dbms\_output.put\_line(i);

i:=i+1;

exit when i>10;

end loop;

end;

**O/P:**

1

2

3

4

5

6

7

8

9

10

**For Loop :**

**Program 13:**

begin

for i in 1..10

loop

dbms\_output.put\_line(i);

end loop;

end;

**O/P:**

1

2

3

4

5

6

7

8

9

10

**For Loop in reverse order**

**Program 14 :**

begin

for i in reverse 1..10

loop

dbms\_output.put\_line(i);

end loop;

end;

**O/P:**

10

9

8

7

6

5

4

3

2

1

**CURSOR :**

DECLARE

/\* DECLARE Cursor \*/

CURSOR emp\_cursor IS

SELECT empname from employee39810 ORDER BY empid;

BEGIN

FOR emp IN emp\_cursor loop

/\* empid already has the row details, you don't need to have any other variables \*/

DBMS\_OUTPUT.PUT\_LINE('employee name is ' ||emp.empname);

end LOOP;

END;

**Stored Procedure :**

**Program 15:**

create procedure pr139810

as BEGIN

dbms\_output.put\_line('Welcome to the stored Procedure');

end pr139810;

begin

pr139810();

end;

**O/P :**

Welcome to the stored Procedure

**Stored procedure with Parameters:**

**Program 16 :**

create or replace procedure sumOfNum39810(n1 number,n2 number)

as

sumRes number(10);

BEGIN

sumRes := n1+n2;

dbms\_output.put\_line('Sum of the given numbers are : ' || sumRes);

end sumOfNum39810;

exec sumOfNum39810(5,2);

**O/P:**

Sum of the given numbers are : 7

**Procedure with in and out parameter:**

**Program 17:**

create or replace procedure sumOfNum39810(n1 number,n2 number,res out number)

as

BEGIN

res := n1+n2;

end sumOfNum39810;

declare

res number;

begin

sumOfNum39810(10,20,res);

dbms\_output.put\_line('The sum is : ' || res);

end;

**O/P :** The sum is : 30

Program 18:

create or replace procedure getDetails39810(n1 in number,ename out varchar2,esalary out number)

as

BEGIN

select empname,empsal into ename,esalary from employee39810 where empid=n1;

end getDetails39810;

declare

eid number := &empId;

ename varchar2(50);

esalary number;

begin

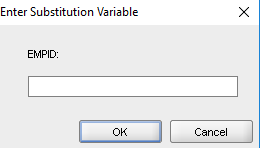
getDetails39810(eid,ename,esalary);

dbms\_output.put\_line('The name is : ' || ename);

dbms\_output.put\_line('The Salary is : ' || esalary);

end;

O/P:



The name is : SUBRAMANYAM

The Salary is : 40000

**Function:**

**Program 19:**

create or replace function f139810

return varchar

as

name varchar2(10);

BEGIN

name := 'Abhinaya';

return name;

end f139810;

declare

ename varchar2(50);

begin

ename := f139810();

dbms\_output.put\_line('The name is : ' || ename);

end;

**O/P:**

The name is : Abhinaya

**Program 20**

create or replace function getName39810(eid in number)

return varchar2

as

ename varchar2(25);

BEGIN

select empname into ename from employee39810 where empid=eid;

ename := 'Your name is ' || ename;

return ename;

end getName39810;

select getName39810(empid) from employee39810;

**O/P:**

Your name is sa

Your name is sad

Your name is as

Your name is SUBRAMANYAM

Your name is ABHINAYA

Your name is GOPI KRISHNA

Your name is AKSHATA

Your name is SUDHARSANAN

**Procedure calling from servlet :**

**Prgram 21:**

**package** com;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** java.sql.CallableStatement;

**import** java.sql.Connection;

**import** java.sql.Driver;

**import** java.sql.DriverManager;

**import** java.sql.Types;

**import** javax.servlet.ServletException;

**import** javax.servlet.annotation.WebServlet;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class ServletProcedureDemo

\*/

@WebServlet("/ServletProcedureDemo")

**public** **class** ServletProcedureDemo **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** ServletProcedureDemo() {

**super**();

// **TODO** Auto-generated constructor stub

}

/\*\*

\* **@see** HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doGet(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

**int** empId = Integer.*parseInt*(request.getParameter("empId"));

String name = **null**;

**int** empSal = 0;

PrintWriter pw = response.getWriter();

**try** {

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@172.25.163.114:1521/hyper2","system","Password123");

CallableStatement cstmt = con.prepareCall("{call getDetails39810(?,?,?)}");

cstmt.setInt(1, empId);

cstmt.registerOutParameter(2, Types.***VARCHAR***);

cstmt.registerOutParameter(3, Types.***INTEGER***);

cstmt.executeUpdate();

pw.println("Name is : "+cstmt.getString(2));

pw.println("Id is : "+cstmt.getInt(3));

} **catch** (Exception e) {

// **TODO**: handle exception

System.***out***.println(e);

}

}

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doPost(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

doGet(request, response);

}

}

**Procedure :**

create or replace procedure getDetails39810(n1 in number,ename out varchar2,esalary out number)

as

BEGIN

select empname,empsal into ename,esalary from employee39810 where empid=n1;

end getDetails39810;

**O/P:**

Name is : SUBRAMANYAM

Id is : 40000

**Function calling from servlet**

**package** com;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** java.sql.CallableStatement;

**import** java.sql.Connection;

**import** java.sql.Driver;

**import** java.sql.DriverManager;

**import** java.sql.Types;

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**import** javax.servlet.annotation.WebServlet;

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/\*\*

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/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** ServletProcedureDemo() {

**super**();

// **TODO** Auto-generated constructor stub

}

/\*\*

\* **@see** HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doGet(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

**int** empId = Integer.*parseInt*(request.getParameter("empId"));

String name = **null**;

**int** empSal = 0;

PrintWriter pw = response.getWriter();

**try** {

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.*getConnection*("jdbc:oracle:thin:@172.25.163.114:1521/hyper2","system","Password123");

CallableStatement cstmt = con.prepareCall("{? = call getName39810(?)}");

cstmt.setInt(2, empId);

cstmt.registerOutParameter(1, Types.***VARCHAR***);

cstmt.executeUpdate();

pw.println("Name is : "+cstmt.getString(1));

} **catch** (Exception e) {

// **TODO**: handle exception

System.***out***.println(e);

}

}

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doPost(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

doGet(request, response);

}

}

**Function**

create or replace function getName39810(eid in number)

return varchar2

as

ename varchar2(25);

BEGIN

select empname into ename from employee39810 where empid=eid;

ename := 'Your name is ' || ename;

return ename;

end getName39810;

**O/P:**

Name is : Your name is SUBRAMANYAM