

Aim of the Practical

To understand the basic structure of a PL/SQL program by creating and executing a simple PL/SQL block that includes declaration and execution sections, and to display output using built-in procedures.

Tool Used

Database Management System

- Oracle Database

Database Administration Tool

- Oracle SQL *Plus / SQL Developer

Objective

- To create a simple PL/SQL program demonstrating the **Declaration Section** and **Execution Section**.
- To declare and initialize variables in a PL/SQL block.
- To display output using DBMS_OUTPUT.PUT_LINE.
- To perform basic mathematical calculations in PL/SQL.

Practical / Experimental Steps

1. Open **Oracle SQL*Plus** or **Oracle SQL Developer**.
2. Create a new SQL worksheet.
3. Enable output display using the command:
4. SET SERVEROUTPUT ON
5. Write a PL/SQL block with a DECLARE section to define employee details.
6. Use the BEGIN...END block to perform calculations.
7. Display the employee details and calculated bonus using DBMS_OUTPUT.PUT_LINE.
8. Execute the program and verify the output in the output window.

I / O Analysis

PL/SQL Block: Employee Details and Bonus Calculation

```
1 DECLARE
2     v_id      NUMBER := 1011;
3     v_name     VARCHAR2(50) := 'Pranav Sood';
4     v_salary   NUMBER := 80000;
5     v_bonus    NUMBER;
6 BEGIN
7     DBMS_OUTPUT.PUT_LINE('ID      : ' || v_id);
8     DBMS_OUTPUT.PUT_LINE('Name    : ' || v_name);
9     DBMS_OUTPUT.PUT_LINE('Salary: ' || v_salary);
10
11     v_bonus := v_salary * 0.10;
12
13     DBMS_OUTPUT.PUT_LINE('10 percent of salary is : ' || v_bonus);
14 END;
15 /
16
```

Output

- Displays Employee ID, Name, and Salary
- Calculates **10% bonus** of the salary
- Displays the calculated bonus amount

Output:

```
ID      : 1011
Name    : Pranav Sood
Salary: 80000
10 percent of salary is : 8000
```

Learning Outcomes

- Understood the basic structure of a PL/SQL block including DECLARE and BEGIN...END.
- Learned how to declare and initialize variables in PL/SQL.
- Practiced using DBMS_OUTPUT.PUT_LINE for displaying program output.
- Performed arithmetic operations on numeric variables.
- Gained confidence in writing and executing simple PL/SQL programs.