# University Institute of Engineering

# Department of Computer Science & Engineering

## Experiment: 3

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**Branch: CSE** **Section/Group: AIT-KRG-G2**

**Semester: 4th** **Date of Performance:7/01/28**

**Subject Name: DBMS**

1. **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.

**2. Tool Used:**

- **Database Management System:**
  - **Oracle Database**

3. **Objective:**
   To create a simple PL/SQL program demonstrating Declaration Section and Execution Section.

4. **Practical / Experimental Steps**

Step 1: Open Oracle SQL*Plus / SQL Developer and create a new SQL worksheet.

Step 2: Enable output display using the command: `SET SERVEROUTPUT ON`.

Step 3: Write the first PL/SQL block with a **DECLARE** section to define employee variables.

Step 4: Execute the block using **BEGIN…END** and display values using `DBMS_OUTPUT.PUT_LINE`.

Step 5: Run the second and third blocks to perform salary calculations and conditional tax bracket checks.

Step 6: Observe and verify the output results shown in the output window for each PL/SQL block execution

## A. Declaration Section

```
DECLARE
   emp_id     NUMBER := 101;
   emp_name   VARCHAR2(50) := 'John Doe';
   emp_salary NUMBER := 90000;
```

## B. Execution Section

```
BEGIN
   DBMS_OUTPUT.PUT_LINE('Employee ID : ' || emp_id);
   DBMS_OUTPUT.PUT_LINE('Employee Name : ' || emp_name);
   DBMS_OUTPUT.PUT_LINE('Employee Salary : ' || emp_salary);
END;
/
```

## 5. I / O Analysis

```
DECLARE
   emp_id     NUMBER := 101;
   emp_name   VARCHAR2(50) := 'John Doe';
   emp_salary NUMBER := 90000;
BEGIN
   DBMS_OUTPUT.PUT_LINE('Employee ID : ' || emp_id);
   DBMS_OUTPUT.PUT_LINE('Employee Name : ' || emp_name);
   DBMS_OUTPUT.PUT_LINE('Employee Salary : ' || emp_salary);
   result := emp_salary * 0.01;
 DBMS_OUTPUT.PUT_LINE('10% of salary :'|| result);
END;
/
```

Output:

```
Employee ID : 101
Employee Name : John Doe
Employee Salary : 90000
10% of salary :900
```

## 6. Learning outcomes (What I have learnt):

- Understood the basic structure of a PL/SQL block, including the **DECLARE** and **BEGIN…END** sections.
- Learned how to declare and initialize variables for storing data values.
- Gained knowledge of using `DBMS_OUTPUT.PUT_LINE` to display results during program execution.
- Practiced performing mathematical operations on variables within PL/SQL programs.
- Developed understanding of decision-making using **IF–ELSIF–ELSE** conditional statements.
- Acquired practical insight into how PL/SQL can be used for simple database-related computations and logic implementation.

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