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**Section/Group:**24AIT-KRG1/G2

**Semester:**4th

**Subject Name:** DBMS

## 1. Aim

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.

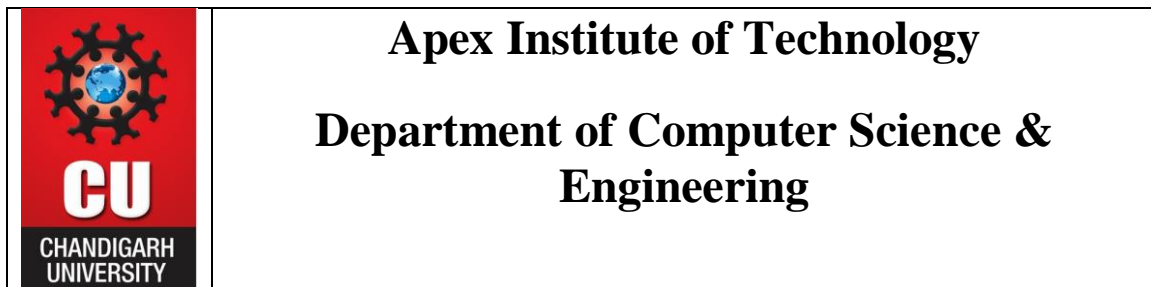
## 2. Objective of the Session

- To understand the basic structure of an Oracle PL/SQL block
- To learn variable declaration and initialization in PL/SQL
- To implement procedural logic using the BEGIN-END execution block
- To display output using built-in procedures such as DBMS\_OUTPUT.PUT\_LINE
- To strengthen foundational PL/SQL skills required for database programming, backend development, and technical interviews

## 3. Theory

1. A PL/SQL block consists of three main sections:

**Declaration Section (DECLARE)**



- Variables, constants, cursors are declared here.

**Execution Section (BEGIN ... END)**

- Contains executable statements.

**Exception Section (EXCEPTION) (*optional*)**

Think of it like a human:

- **DECLARE** → Memory
- **BEGIN** → Action
- **END** → Closure

#### **4. Problem Statement**

Design and implement a simple PL/SQL program that demonstrates the **basic structure of a PL/SQL block**.

The program should:

1. Declare variables for employee details
2. Assign values to those variables
3. Display the values using output statements

#### **5. Procedure of the Practical**

1. Open **pgAdmin / SQL environment** (conceptual PL/SQL execution).
2. Enable server output:
3. SET SERVER OUTPUT ON;
4. Write a PL/SQL block with:
  - Employee ID
  - Employee Name
  - Employee Salary
5. Assign values inside the execution section.
6. Display output using DBMS\_OUTPUT.PUT\_LINE.
7. Execute the block and observe the output.

## 5. I/O Analysis (Input / Output Analysis)

### Input:

Variable	Value
Emp_id	101
Emp_name	Aditya
Emp_salary	45000

### Output:

Employee ID : 108

Employee Name : Sumit Chauhan

Employee Salary : 45000

## SQL Implementation (PgAdmin / PostgreSQL)

DECLARE

emp\_id NUMBER := 108;

emp\_name VARCHAR2(50) := 'Sumit Chauhan ';

emp\_salary NUMBER := 45000;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Employee Details');

DBMS\_OUTPUT.PUT\_LINE('-----');

DBMS\_OUTPUT.PUT\_LINE('Employee ID : ' || emp\_id);

DBMS\_OUTPUT.PUT\_LINE('Employee Name : ' || emp\_name);

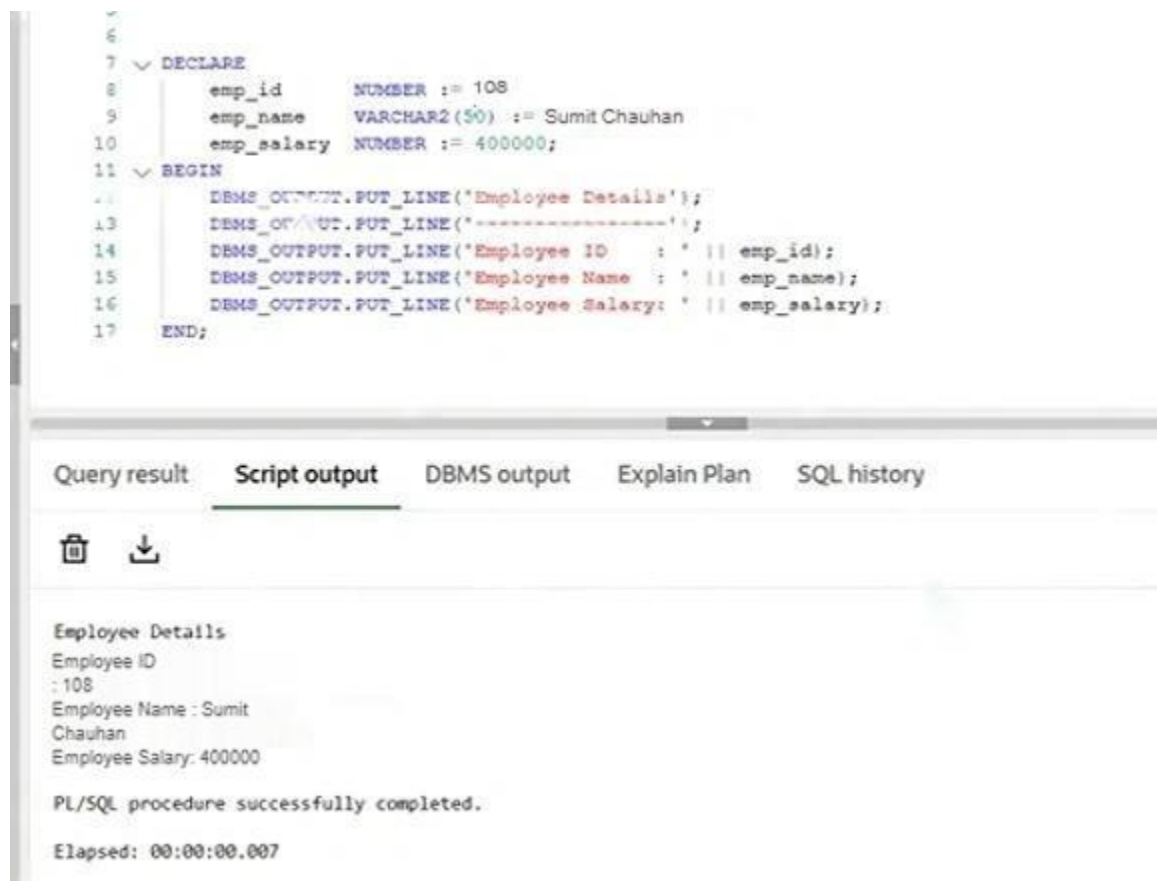
```
DBMS_OUTPUT.PUT_LINE('Employee Salary: ' || emp_salary);
```

```
END;
```

## 7. Learning Outcomes

- Understand the **basic structure of a PL/SQL block**
- Declare and initialize variables in PL/SQL
- Use the **BEGIN–END** execution block
- Display output using DBMS\_OUTPUT.PUT\_LINE
- Develop confidence in writing simple procedural database programs

## 7. Screenshots



```
6
7 DECLARE
8     emp_id      NUMBER := 108
9     emp_name    VARCHAR2(50) := Sumit Chauhan
10    emp_salary  NUMBER := 400000;
11 BEGIN
12     DBMS_OUTPUT.PUT_LINE('Employee Details');
13     DBMS_OUTPUT.PUT_LINE('-----');
14     DBMS_OUTPUT.PUT_LINE('Employee ID      : ' || emp_id);
15     DBMS_OUTPUT.PUT_LINE('Employee Name : ' || emp_name);
16     DBMS_OUTPUT.PUT_LINE('Employee Salary: ' || emp_salary);
17 END;
```

Query result   **Script output**   DBMS output   Explain Plan   SQL history

Employee Details  
Employee ID  
: 108  
Employee Name : Sumit  
Chauhan  
Employee Salary: 400000

PL/SQL procedure successfully completed.

Elapsed: 00:00:00.007