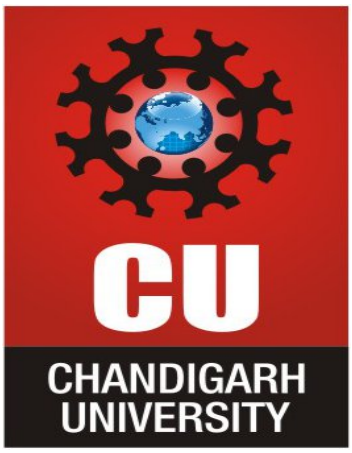

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Topic : Experiment 3

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.

Software Requirements

- **Database Management System:**
    - PostgreSQL
- **Database Administration Tool:**
    - pgAdmin

Objective:

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

Problem Statement:

Design and implement a simple PL/SQL program that demonstrates the basic structure of a PL/SQL block. The program should include a declaration section to define variables and an execution section to perform operations using those variables and display the results using appropriate output statements.

1. Declaration Section (DECLARE)

- Variables are declared and initialized:
    - **emp_id** → Employee ID
    - **emp_name** → Employee Name
    - **emp_salary** → Employee Salary

2. Execution Section (BEGIN ... END)

- **DBMS_OUTPUT.PUT_LINE** is used to display output.

Procedure:

1. Open pgAdmin and connect to the PostgreSQL database server.
2. Create an employee table with employee ID, name, and salary.
3. Insert sample data into the employee table.
4. Write a PL/pgSQL anonymous block using the DO $$ command.
5. Declare variables in the **DECLARE** section to store employee details.

6.In the **BEGIN…END** section:

- Retrieve employee data from the table into variables.
- Perform a basic operation (calculate 10% salary increment).
- Display employee details and calculated salary using output statements.

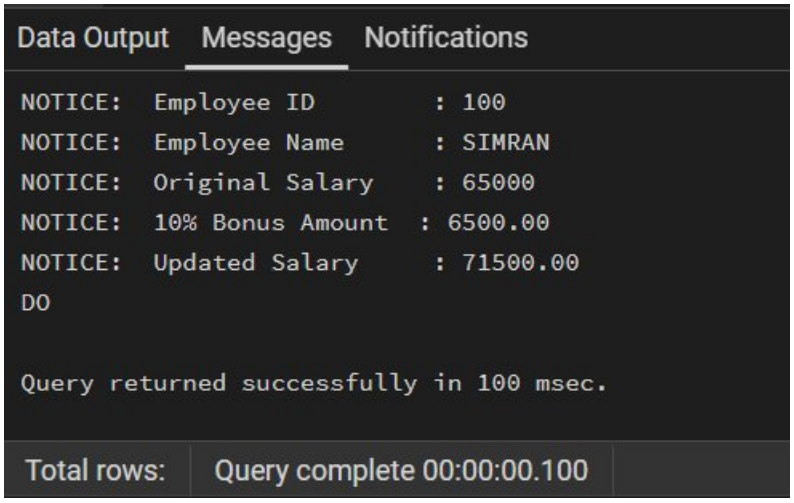
7.Execute the block and observe the output in the Messages/Notices panel of pgAdmin.

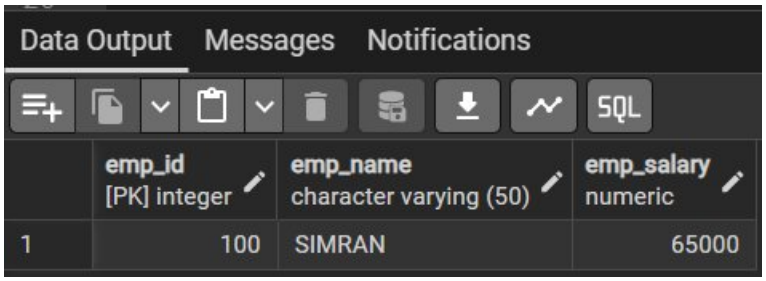
CODE:

```
CREATE TABLE employee (
    emp_id INTEGER PRIMARY KEY,
    emp_name VARCHAR(50),
    emp_salary NUMERIC
);


INSERT INTO employee VALUES (100, 'SIMRAN', 65000);
DO $$
DECLARE
    v_id INTEGER;
    v_name VARCHAR(50);
    v_salary NUMERIC;
    v_bonus NUMERIC;
BEGIN
    SELECT emp_id, emp_name, emp_salary
    INTO v_id, v_name, v_salary
    FROM employee
```

```
    WHERE emp_id = 100;

    v_bonus := v_salary * 0.10;

    RAISE NOTICE 'Employee ID        : %', v_id;
    RAISE NOTICE 'Employee Name      : %', v_name;
    RAISE NOTICE 'Original Salary    : %', v_salary;
    RAISE NOTICE '10%% Bonus Amount  : %', v_bonus;
    RAISE NOTICE 'Updated Salary     : %', v_salary + v_bonus;
END $$;
```

OUTPUT:





Learning Outcomes:

- Understand the structure of a PL/pgSQL program.
- Use the declaration section to define variables.
- Retrieve data from a table into variables.
- Perform basic arithmetic operations using variables.