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Semester: 4
Subject Name: Database Management System

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Experiment

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.

Objective

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

Practical / Experiment Steps

- Open the system and launch **pgAdmin**.
- Connect to the **PostgreSQL** database server.
- Open the **Query Tool**.
- Enable output display (SET SERVEROUTPUT ON).
- Write the **DECLARE** section to define variables.
- Initialize the variables with values.
- Start the **Execution Section** using BEGIN.
- Use DBMS_OUTPUT.PUT_LINE to print values.
- End the block using END;
- Execute the program.
- Verify the output on the console.



Procedure of the Experiment

1. Start the system and log in to the computer.
2. Open **pgAdmin** and connect to the **PostgreSQL** server.
3. Open the **Query Tool** in pgAdmin.
4. Enable output display using the command:
SET SERVEROUTPUT ON;
6. Write the PL/SQL block starting with the **DECLARE** section.
7. Declare the required variables:
 - emp_id for Employee ID
 - emp_name for Employee Name
 - emp_salary for Employee Salary
8. Initialize the variables with appropriate values.
9. Start the **Execution Section** using BEGIN.
10. Use DBMS_OUTPUT.PUT_LINE to display:
 - Employee ID
 - Employee Name
 - Employee Salary
11. End the PL/SQL block using END;.
12. Execute the program.
13. Verify the output displayed in the **output console**.
14. Take screenshots of:
 - Code execution
 - Output result
14. Save the work and close the application.

CODE :

SET SERVEROUTPUT ON;

DECLARE

```
emp_id  NUMBER := 101;
emp_name VARCHAR2(50) := 'KAPISH GUPTA';
emp_salary NUMBER := 50000;
```

BEGIN

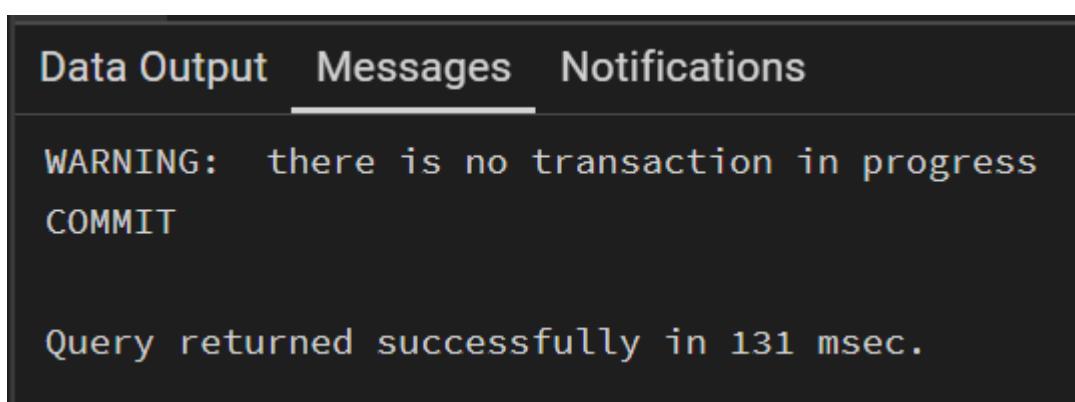
```
DBMS_OUTPUT.PUT_LINE('Employee ID: ' || emp_id);
DBMS_OUTPUT.PUT_LINE('Employee Name: ' || emp_name);
DBMS_OUTPUT.PUT_LINE('Employee Salary: ' || emp_salary);
```

END;

Learning Outcomes:

- Understood the structure of a PL/SQL block.
- Learned about declaration and execution sections.
- Learned how to declare and initialize variables.
- Understood usage of DBMS_OUTPUT.PUT_LINE.
- Gained basic hands-on experience in PL/SQL programming.

SCREENSHOTS



The screenshot shows the Oracle SQL Developer interface with a dark theme. At the top, there are three tabs: "Data Output", "Messages", and "Notifications". The "Messages" tab is currently selected, indicated by a blue underline. Below the tabs, the message area displays the following text:
WARNING: there is no transaction in progress
COMMIT

Query returned successfully in 131 msec.

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No limit

Query History

```
1 DO $$  
2 DECLARE  
3     emp_id      INTEGER := 101;  
4     emp_name    VARCHAR(50) := 'KAPISH GUPTA';  
5     emp_salary   NUMERIC := 50000;  
6 BEGIN  
7     RAISE NOTICE 'Employee ID: %', emp_id;  
8     RAISE NOTICE 'Employee Name: %', emp_name;  
9     RAISE NOTICE 'Employee Salary: %', emp_salary;  
10 END $$;  
11 |
```