

EXPERIMENT 3

Student Name: Shreyansh Gupta

Branch: AIT-CSE (AIML)

Semester: 4

Subject Name: Database Management System

UID: 24BAI70658

Section/Group: 24AIT_KRG1/G2

Subject Code: 24CSH-298

Experiment 3

Calculating employee salary and applying a bonus using PL/SQL. This experiment demonstrates variable declaration, arithmetic operations, and displaying output using DBMS_OUTPUT.PUT_LINE.

Aim

The aim of this experiment is to practice writing PL/SQL blocks that perform calculations on employee data, calculate bonuses, and display results in a structured format.

Objective

- To declare variables in PL/SQL.
- To perform arithmetic calculations on employee salary.
- To calculate a bonus amount based on a percentage of salary.
- To display employee details and salary information before and after applying the bonus.

Software Requirements

- Database: Oracle XE or Oracle Live SQL

Practical / Experiment Steps

1. Declare variables for employee ID, name, and salary.
2. Calculate a 10% bonus on the employee salary.
3. Calculate the total salary after adding the bonus.
4. Display employee details and salary information before and after bonus.
5. Take screenshots of outputs for documentation.

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Procedure of the Experiment

1. Start the system and log in.
2. Open Oracle XE or Live SQL.
3. Connect to the database.
4. Declare variables for employee details and bonus calculation.
5. Write the PL/SQL block to calculate bonus and total salary.
6. Execute the PL/SQL block and verify outputs in the console.
7. Take screenshots of the outputs (s1 and s2).

Input / Output Details

Input

- Employee details:
 - emp_id INTEGER := 101;
 - emp_name VARCHAR(50) := 'Shreyansh Gupta';
 - emp_salary NUMERIC := 45000;
 - bonus_amount NUMERIC;
 - new_salary NUMERIC;
- Bonus calculation: 10% of employee salary

Output

- Step 1: Display employee details and original salary.
- Step 2: Display bonus amount and total salary after applying 10% bonus.
- Screenshots of outputs (s1 and s2) are attached.

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Code :

DO \$\$

DECLARE

```
emp_id      INTEGER := 102;
emp_name    VARCHAR(50) := 'Shreyansh Gupta';
emp_salary   NUMERIC := 45000;
bonus_amount NUMERIC;
new_salary   NUMERIC;
```

BEGIN

```
bonus_amount := emp_salary * 0.10;
new_salary := emp_salary + bonus_amount;
```

```
RAISE NOTICE 'Employee Details';
RAISE NOTICE '-----';
RAISE NOTICE 'Employee ID : %', emp_id;
RAISE NOTICE 'Employee Name : %', emp_name;
```

```
RAISE NOTICE ";
RAISE NOTICE 'Salary Details';
RAISE NOTICE '-----';
RAISE NOTICE 'Salary Before Bonus : %', emp_salary;
RAISE NOTICE '10%% Bonus Amount : %', bonus_amount;
RAISE NOTICE 'Salary After Bonus : %', new_salary;
```

END \$\$;

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Step 1 Output

Data Output	Messages	Notifications
NOTICE: Employee Details		
NOTICE: -----		
NOTICE: Employee ID : 102		
NOTICE: Employee Name : Shreyansh Gupta		
NOTICE:		
NOTICE: Salary Details		
NOTICE: -----		
NOTICE: Salary Before Bonus : 45000		
NOTICE: 10% Bonus Amount : 4500.00		
NOTICE: Salary After Bonus : 49500.00		
DO		

Query returned successfully in 134 msec.

Employee Details

Employee ID : 102

Employee Name : Shreyansh Gupta

Salary Before Bonus : 45000

Step 2 Output

Screenshot: Step 2 – Salary After Bonus

Salary Details

Salary Before Bonus : 45000

10% Bonus Amount : 4500

Salary After Bonus : 49500

Learning Outcome

After completing this experiment, the student will be able to:

- Declare and use variables in PL/SQL.
- Perform arithmetic operations for salary calculations.
- Calculate bonuses based on a percentage of salary.



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- Display structured outputs using DBMS_OUTPUT.PUT_LINE.
- Understand the workflow of PL/SQL blocks for practical data operations.