EXPERIMENT 4

Student Name: Punya Arora **UID: 24BAI70928**
Branch: AIT-CSE (AIML) **Section/Group: 24AIT_KRG2**
Semester: 4
Subject Name: Database Management System **Subject Code: 24CSH-298**

EXPERIMENT – 04

Aim

To design and implement PL/SQL programs utilizing conditional control statements such as IF–ELSE, ELSIF, ELSIF ladder, and CASE constructs in order to control the flow of execution based on logical conditions and to analyze decision-making capabilities in PL/SQL blocks.

Tools Used

- PostgreSQL
- pgAdmin

Objectives

• Implement control structures in PL/SQL (IF-ELSE, ELSE-IF, ELSE-IF LADDER, CASE STATEMENTS in PL-SQL BLOCK).

---

1. Problem Statement – IF–ELSE Statement:

Write a PL/SQL program to check whether a given number is positive or non-positive using the IF–ELSE conditional control statement and display an appropriate message.

2. Problem Statement – IF–ELSIF–ELSE Statement:

Write a PL/SQL program to evaluate the grade of a student based on the obtained marks using the IF–ELSIF–ELSE statement and display the corresponding grade.

EXPERIMENT 4

3. Problem Statement – ELSIF Ladder:

Write a PL/SQL program to determine the performance status of a student based on marks using an ELSIF ladder and display the appropriate result.

4. Problem Statement – CASE Statement:

Write a PL/SQL program to display the name of the day based on a given day number using the CASE conditional statement.

Experiment:

```
-- Problem Statement 1
DECLARE
   num NUMBER := 5;
BEGIN
   IF num > 0 THEN
      DBMS_OUTPUT.PUT_LINE('The number is positive.');
   ELSE
      DBMS_OUTPUT.PUT_LINE('The number is non-positive.');
   END IF;
END;


-- Problem Statement 2
DECLARE
   marks NUMBER := 78;
BEGIN
   IF marks >= 90 THEN
      DBMS_OUTPUT.PUT_LINE('Grade: A');
   ELSIF marks >= 75 THEN
      DBMS_OUTPUT.PUT_LINE('Grade: B');
   ELSIF marks >= 60 THEN
      DBMS_OUTPUT.PUT_LINE('Grade: C');
   ELSIF marks >= 40 THEN
```

EXPERIMENT 4

```
    DBMS_OUTPUT.PUT_LINE('Grade: D');
  ELSE
    DBMS_OUTPUT.PUT_LINE('Grade: F (Fail)');
  END IF;
END;

-- Problem Statement 3
DECLARE
  marks NUMBER := 78;
BEGIN
  IF marks >= 90 THEN
    DBMS_OUTPUT.PUT_LINE('Performance: Outstanding');
  ELSIF marks >= 75 THEN
    DBMS_OUTPUT.PUT_LINE('Performance: Very Good');
  ELSIF marks >= 60 THEN
    DBMS_OUTPUT.PUT_LINE('Performance: Good');
  ELSIF marks >= 40 THEN
    DBMS_OUTPUT.PUT_LINE('Performance: Average');
  ELSE
    DBMS_OUTPUT.PUT_LINE('Performance: Poor');
  END IF;
END;

-- Problem Statement 4
```

Course Outcome

- Understood the basic structure of a PL/SQL block including the Declaration and Execution sections.
- Successfully displayed output using the DBMS_OUTPUT.PUT_LINE procedure.

EXPERIMENT 4

- Gained practical experience in declaring variables and concatenating values in PL/SQL.

Result

The PL/SQL program was executed successfully using declaration and execution sections. The employee details were displayed correctly using the DBMS_OUTPUT.PUT_LINE procedure.

Screenshots