WEEK 2

Mandatory Hands-On

**PL/ SQL Programming**

**EX:1 Control Structures**

**Scenario 1: The bank wants to apply a discount to loan interest rates for customers above 60 years old.**

**PL/ SQL QUERY:**

DECLARE

CURSOR senior\_pointer IS

SELECT CustomerId, InterestRate

FROM loans   
 WHERE CustomerId IN (

SELECT CustomerId FROM customers WHERE age>60

);

BEGIN

FOR loan\_records IN senior\_pointer LOOP

UPDATE loans

SET InterestRate= InterestRate -1

WHERE CustomerId = loan\_records. CustomerId;

DBMS\_OUTPUT.PUT\_LINE(‘ Applied 1% discount for Customer Id: ‘|| loan\_records. CustomerId);

END LOOP;

EXCEPTION

WHEN OTHERS THEN   
 DBMS\_OUTPUT.PUT\_LINE(‘Error: ’|| SQLERRM);

END;

**SAMPLE OUTPUT:**

Applied 1% discount for Customer ID: 101.

Applied 1% discount for Customer ID: 105.

**Scenario 2: A customer can be promoted to VIP status based on their balance.**

**PL/ SQL QUERY:**

DECLARE

CURSOR vip\_pointer IS

SELECT CustomerId, balance

FROM customers

WHERE balance > 10000;

BEGIN

FOR customer\_records IN vip\_pointer LOOP

UPDATE customers

SET IsVIP = 'TRUE'

WHERE CustomerId = customer\_records. CustomerId;

DBMS\_OUTPUT.PUT\_LINE('Customer ID ' || customer\_records. CustomerId || ' is now a VIP.');

END LOOP;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Error: ' || SQLERRM);

END;

**SAMPLE OUTPUT:**

Customer ID 102 is now a VIP.

Customer ID 108 is now a VIP.

**Scenario 3: The bank wants to send reminders to customers whose loans are due within the next 30 days.**

**PL/ SQL QUERY:**

DECLARE

CURSOR due\_pointer IS

SELECT l.LoanId, c. CustomerId, c.name, l.EndDate

FROM loans l

JOIN customers c ON l. CustomerId = c. CustomerId

WHERE l.EndDate BETWEEN SYSDATE AND SYSDATE + 30;

BEGIN

FOR loan\_records IN due\_pointer LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ID ' || loan\_records.LoanId ||

' for Customer ' || loan\_records.name ||

' is due on ' || TO\_CHAR(loan\_records.EndDate, 'DD-MON-YYYY'));

END LOOP;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Error: ' || SQLERRM);

END;

**SAMPLE OUTPUT:**

Reminder: Loan ID 301 for Customer John is due on 08-JUL-2025.

Reminder: Loan ID 305 for Customer Riya is due on 22-JUL-2025.