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 customer\_id, interest\_rate

FROM loans   
 WHERE customer\_id IN (

SELECT customer\_id FROM customers WHERE age>60

);

BEGIN

FOR loan\_records IN senior\_pointer LOOP

UPDATE loans

SET interest\_rate= interest\_rate -1

WHERE customer\_id= loan\_records.customer\_id;

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

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 customer\_id, balance

FROM customers

WHERE balance > 10000;

BEGIN

FOR customer\_records IN vip\_pointer LOOP

UPDATE customers

SET IsVIP = 'TRUE'

WHERE customer\_id = customer\_records.customer\_id;

DBMS\_OUTPUT.PUT\_LINE('Customer ID ' || customer\_records.customer\_id || ' 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.loan\_id, c.customer\_id, c.f\_name, l.due\_date

FROM loans l

JOIN customers c ON l.customer\_id = c.customer\_id

WHERE l.due\_date BETWEEN SYSDATE AND SYSDATE + 30;

BEGIN

FOR loan\_records IN due\_pointer LOOP

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

' for Customer ' || loan\_records.f\_name ||

' is due on ' || TO\_CHAR(loan\_records.due\_date, '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.