**CONTROL STRUCTURES**

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

**Question:** Write a PL/SQL block that loops through all customers, checks their age, and if they are above 60, apply a 1% discount to their current loan interest rates.

CREATE TABLE customers (

customer\_id NUMBER PRIMARY KEY,

age NUMBER,

balance NUMBER,

IsVIP VARCHAR2(5)

);

CREATE TABLE loans (

loan\_id NUMBER PRIMARY KEY,

customer\_id NUMBER,

interest NUMBER,

due\_date DATE

);

INSERT INTO customers VALUES (1, 65, 15000, 'FALSE');

INSERT INTO customers VALUES (2, 45, 8000, 'FALSE');

INSERT INTO customers VALUES (3, 78, 18000, 'FALSE');

INSERT INTO loans VALUES (101, 1, 10, SYSDATE + 15);

INSERT INTO loans VALUES (102, 2, 12, SYSDATE + 40);

BEGIN

FOR customer\_record IN(

SELECT customer\_id,age

FROM customers

WHERE age>60

)LOOP

UPDATE loans

SET interest=interest-1

WHERE customer\_id=customer\_record.customer\_id;

DBMS\_OUTPUT.PUT\_LINE('Updated customer ID: ' || customer\_record.customer\_id);

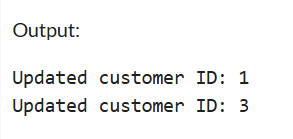
END LOOP;

commit;

END;

/

**OUTPUT**

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

**Question:** Write a PL/SQL block that iterates through all customers and sets a flag IsVIP to TRUE for those with a balance over $10,000.

BEGIN

FOR customer\_record IN (

SELECT customer\_id

FROM customers

WHERE balance > 10000

) LOOP

UPDATE customers

SET IsVIP = 'TRUE'

WHERE customer\_id = customer\_record.customer\_id;

DBMS\_OUTPUT.PUT\_LINE('Customer ID ' || customer\_record.customer\_id || ' promoted to VIP.');

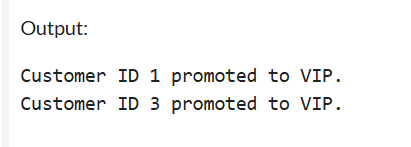
END LOOP;

COMMIT;

END;

/

**OUTPUT:**

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

**Question:** Write a PL/SQL block that fetches all loans due in the next 30 days and prints a reminder message for each customer.

CREATE TABLE customers (

customer\_id NUMBER PRIMARY KEY,

age NUMBER,

balance NUMBER,

IsVIP VARCHAR2(5),

name VARCHAR2(100)

);

CREATE TABLE loans (

loan\_id NUMBER PRIMARY KEY,

customer\_id NUMBER,

interest NUMBER,

due\_date DATE

);

INSERT INTO customers VALUES (1, 65, 15000, 'FALSE', 'Sanju');

INSERT INTO customers VALUES (2, 45, 8000, 'FALSE', 'suga');

INSERT INTO customers VALUES (3, 78, 18000, 'FALSE', 'mohan');

INSERT INTO loans VALUES (101, 1, 10, SYSDATE + 15);

INSERT INTO loans VALUES (102, 2, 12, SYSDATE + 40);

INSERT INTO loans VALUES (103, 3, 11, SYSDATE + 10);

SET SERVEROUTPUT ON;

DECLARE

v\_due\_date loans.due\_date%TYPE;

v\_cust\_name customers.name%TYPE;

BEGIN

FOR loan\_rec IN (

SELECT l.due\_date, c.name

FROM loans l

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

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

) LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Dear ' || loan\_rec.name ||

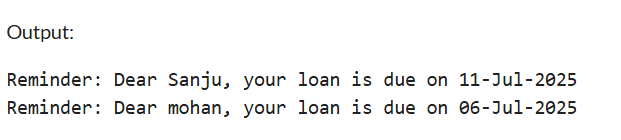
', your loan is due on ' || TO\_CHAR(loan\_rec.due\_date, 'DD-Mon-YYYY'));

END LOOP;

END;

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**OUTPUT:**

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