**Exercise:1**

**Control Structures:**

**SCENERIO:1**

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\_rate NUMBER,

due\_date DATE,

FOREIGN KEY (customer\_id) REFERENCES customers(customer\_id)

);

INSERT INTO customers VALUES (1, 65, 12000, 'FALSE');

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

INSERT INTO customers VALUES (3, 70, 15000, 'FALSE');

INSERT INTO customers VALUES (4, 30, 9500, 'FALSE');

INSERT INTO loans VALUES (101, 1, 7.5, SYSDATE + 10);

INSERT INTO loans VALUES (102, 2, 8.0, SYSDATE + 40);

INSERT INTO loans VALUES (103, 3, 9.0, SYSDATE + 20);

INSERT INTO loans VALUES (104, 4, 7.2, SYSDATE + 5);

COMMIT;

BEGIN

FOR cust\_rec IN (SELECT customer\_id FROM customers WHERE age > 60) LOOP

UPDATE loans

SET interest\_rate = interest\_rate - (interest\_rate \* 0.01)

WHERE customer\_id = cust\_rec.customer\_id;

END LOOP;

COMMIT;

END;

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**SCENERIO:2**

BEGIN

FOR cust\_rec IN (SELECT customer\_id FROM customers WHERE balance > 10000) LOOP

UPDATE customers

SET isvip = 'TRUE'

WHERE customer\_id = cust\_rec.customer\_id;

END LOOP;

COMMIT;

END;

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**SCENERIO:3**

BEGIN

FOR loan\_rec IN (

SELECT loan\_id, customer\_id, due\_date

FROM loans

WHERE due\_date BETWEEN SYSDATE AND SYSDATE + 30

) LOOP

DBMS\_OUTPUT.PUT\_LINE(

'Reminder: Loan ID ' || loan\_rec.loan\_id ||

' for Customer ID ' || loan\_rec.customer\_id ||

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

);

END LOOP;

END;

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**OUTPUT:**

