DO $$

BEGIN

IF EXISTS (SELECT FROM information\_schema.tables WHERE table\_name = 'transactions') THEN

EXECUTE 'DROP TABLE transactions';

END IF;

IF EXISTS (SELECT FROM information\_schema.tables WHERE table\_name = 'accounts') THEN

EXECUTE 'DROP TABLE accounts';

END IF;

IF EXISTS (SELECT FROM information\_schema.tables WHERE table\_name = 'loans') THEN

EXECUTE 'DROP TABLE loans';

END IF;

IF EXISTS (SELECT FROM information\_schema.tables WHERE table\_name = 'customers') THEN

EXECUTE 'DROP TABLE customers';

END IF;

END

$$;

CREATE TABLE Customers (

CustomerID SERIAL PRIMARY KEY,

Name VARCHAR(100)

);

INSERT INTO Customers (Name) VALUES ('Martina'), ('Rose');

CREATE TABLE Accounts (

AccountID SERIAL PRIMARY KEY,

CustomerID INT REFERENCES Customers(CustomerID),

Balance NUMERIC

);

INSERT INTO Accounts (CustomerID, Balance) VALUES (1, 5000), (2, 12000);

CREATE TABLE Transactions (

TransactionID SERIAL PRIMARY KEY,

AccountID INT REFERENCES Accounts(AccountID),

TransactionDate DATE,

Amount NUMERIC,

TransactionType VARCHAR(20)

);

INSERT INTO Transactions (AccountID, TransactionDate, Amount, TransactionType) VALUES

(1, CURRENT\_DATE, 500, 'Deposit'),

(2, CURRENT\_DATE, 300, 'Withdrawal'),

(1, CURRENT\_DATE - INTERVAL '1 month', 200, 'Deposit');

CREATE TABLE Loans (

LoanID SERIAL PRIMARY KEY,

CustomerID INT REFERENCES Customers(CustomerID),

LoanAmount NUMERIC,

InterestRate NUMERIC

);

INSERT INTO Loans (CustomerID, LoanAmount, InterestRate) VALUES

(1, 10000, 5),

(2, 20000, 6);

DO $$

DECLARE

rec RECORD;

cur CURSOR FOR

SELECT t.TransactionID, t.AccountID, t.TransactionDate, t.Amount, t.TransactionType, c.Name

FROM Transactions t

JOIN Accounts a ON t.AccountID = a.AccountID

JOIN Customers c ON a.CustomerID = c.CustomerID

WHERE date\_trunc('month', t.TransactionDate) = date\_trunc('month', CURRENT\_DATE);

BEGIN

OPEN cur;

LOOP

FETCH cur INTO rec;

EXIT WHEN NOT FOUND;

-- No RAISE NOTICE - silently processes each record

PERFORM rec.TransactionID;

END LOOP;

CLOSE cur;

END

$$;

DO $$

DECLARE

rec RECORD;

fee NUMERIC := 100;

cur CURSOR FOR SELECT AccountID FROM Accounts;

BEGIN

OPEN cur;

LOOP

FETCH cur INTO rec;

EXIT WHEN NOT FOUND;

UPDATE Accounts

SET Balance = Balance - fee

WHERE AccountID = rec.AccountID;

END LOOP;

CLOSE cur;

END

$$;

DO $$

DECLARE

rec RECORD;

increase\_rate NUMERIC := 0.5;

cur CURSOR FOR SELECT LoanID, InterestRate FROM Loans;

BEGIN

OPEN cur;

LOOP

FETCH cur INTO rec;

EXIT WHEN NOT FOUND;

UPDATE Loans

SET InterestRate = rec.InterestRate + increase\_rate

WHERE LoanID = rec.LoanID;

END LOOP;

CLOSE cur;

END

$$;

SELECT \* FROM Accounts;

SELECT \* FROM Loans;