Scenario 1 : The bank needs to process monthly interest for all savings accounts.

Question : Write a stored procedure ProcessMonthlyInterest that calculates and updates the balance of all savings accounts by applying an interest rate of 1% to the current balance.

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CREATE PROCEDURE ProcessMonthlyInterest IS

new\_balance NUMBER;

BEGIN

FOR rec IN (SELECT \* FROM Accounts)

LOOP

IF rec.AccountType='Savings'

THEN

new\_balance := rec.Balance \* 1.01;

UPDATE Accounts

SET Balance = new\_balance

WHERE AccountID = rec.AccountID;

UPDATE Customers

SET Balance = new\_balance

WHERE CustomerID = rec.CustomerID;

END IF;

END LOOP;

COMMIT;

END ProcessMonthlyInterest;

------------------------------------------------------------------------------------

Before executing the procedure

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SELECT \* FROM Accounts;

ACCOUNTID CUSTOMERID ACCOUNTTYPE BALANCE LASTMODIF

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1 1 Savings 1000 19-JUN-25

2 2 Current 1500 19-JUN-25

3 3 Savings 1700 19-JUN-25

4 4 Savings 2000 19-JUN-25

5 5 Current 1300 19-JUN-25

6 6 Savings 10000 19-JUN-25

6 rows selected.

SQL> SELECT \* FROM Customers;

CUSTOMERID NAME DOB BALANCE LASTMODIF

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1 John Doe 15-MAY-85 1000 19-JUN-25

2 Jane Smith 20-JUL-90 1500 19-JUN-25

3 Bob Johnson 13-DEC-89 1700 19-JUN-25

4 Cassie Thomas 21-OCT-86 2000 19-JUN-25

5 Todd Anderson 22-SEP-84 1300 19-JUN-25

6 Neil Perry 20-DEC-60 10000 19-JUN-25

6 rows selected.

After executing the procedure

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EXEC ProcessMonthlyInterest;

PL/SQL procedure successfully completed.

SQL> SELECT \* FROM Accounts;

ACCOUNTID CUSTOMERID ACCOUNTTYPE BALANCE LASTMODIF

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1 1 Savings 1010 19-JUN-25

2 2 Current 1500 19-JUN-25

3 3 Savings 1717 19-JUN-25

4 4 Savings 2020 19-JUN-25

5 5 Current 1300 19-JUN-25

6 6 Savings 10100 19-JUN-25

6 rows selected.

SQL> SELECT \* FROM Customers;

CUSTOMERID NAME DOB BALANCE LASTMODIF

---------- ---------------------------------------------------------------------------------------------------- --------- ---------- ---------

1 John Doe 15-MAY-85 1010 19-JUN-25

2 Jane Smith 20-JUL-90 1500 19-JUN-25

3 Bob Johnson 13-DEC-89 1717 19-JUN-25

4 Cassie Thomas 21-OCT-86 2020 19-JUN-25

5 Todd Anderson 22-SEP-84 1300 19-JUN-25

6 Neil Perry 20-DEC-60 10100 19-JUN-25

6 rows selected.