**Pl\_SQL - Control Structures**

**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.**

**SQL Query:**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

BEGIN

UPDATE Accounts

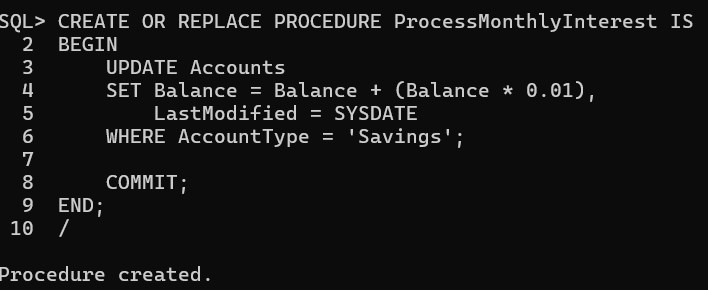
SET Balance = Balance + (Balance \* 0.01),

LastModified = SYSDATE

WHERE AccountType = 'Savings';

COMMIT;

END;



**Scenario 2: The bank wants to implement a bonus scheme for employees based on their performance.**

**o Question: Write a stored procedure UpdateEmployeeBonus that updates the salary of employees in a given department by adding a bonus percentage passed as a parameter.**

**SQL Query:**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus(

p\_department IN VARCHAR2,

p\_bonus\_percent IN NUMBER

) IS

BEGIN

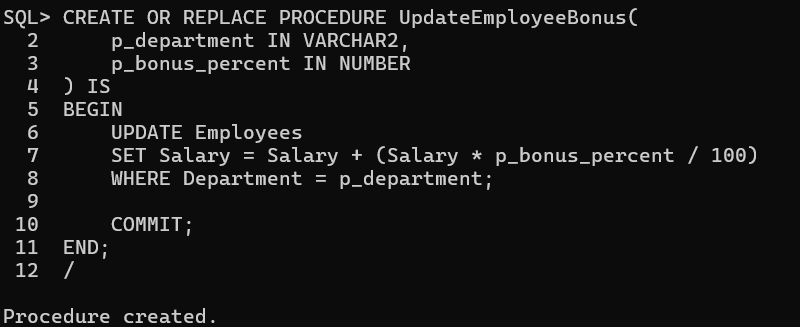
UPDATE Employees

SET Salary = Salary + (Salary \* p\_bonus\_percent / 100)

WHERE Department = p\_department;

COMMIT;

END;



**Scenario 3: Customers should be able to transfer funds between their accounts.**

* **Question: Write a stored procedure TransferFunds that transfers a specified amount from one account to another, checking that the source account has sufficient balance before making the transfer.**

**SQL Query:**

CREATE OR REPLACE PROCEDURE TransferFunds(

p\_from\_account IN NUMBER,

p\_to\_account IN NUMBER,

p\_amount IN NUMBER

) IS

v\_balance\_from NUMBER;

BEGIN

SELECT Balance INTO v\_balance\_from

FROM Accounts

WHERE AccountID = p\_from\_account;

IF v\_balance\_from < p\_amount THEN

RAISE\_APPLICATION\_ERROR(-20004, 'Insufficient balance for transfer.');

END IF;

UPDATE Accounts

SET Balance = Balance - p\_amount

WHERE AccountID = p\_from\_account;

UPDATE Accounts

SET Balance = Balance + p\_amount

WHERE AccountID = p\_to\_account;

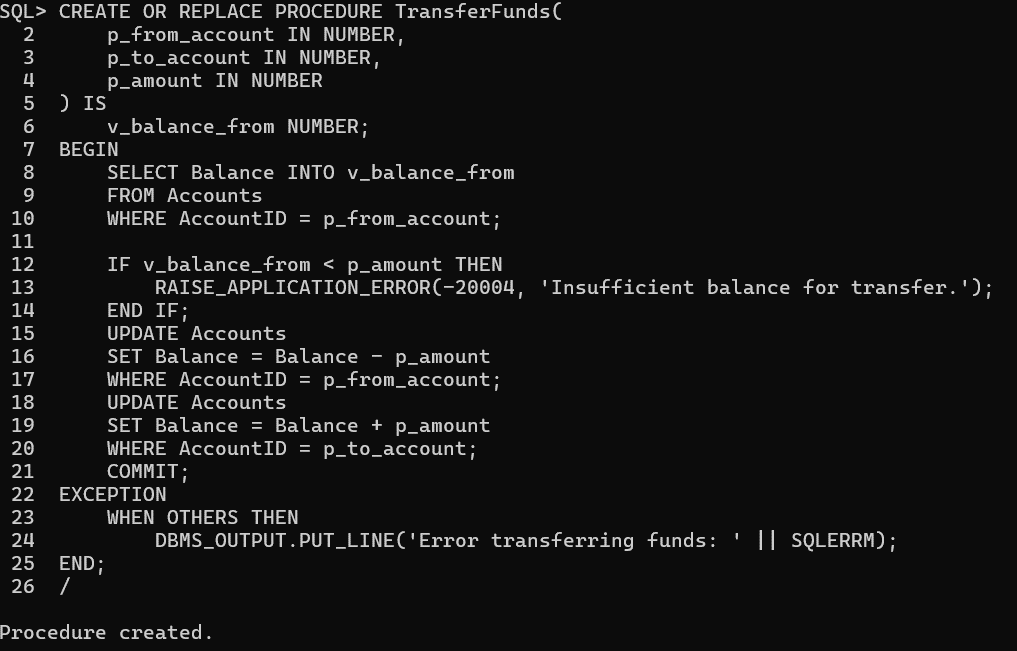
COMMIT;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Error transferring funds: ' || SQLERRM);

END;

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