**Exercise 7: Packages**

**Scenario 3:** Group all account-related operations into a package.

* + **Question:** Create a package **AccountOperations** with procedures for opening a new account, closing an account, and a function to get the total balance of a customer across all accounts.

ANS:

CREATE OR REPLACE PACKAGE AccountOperations AS

PROCEDURE OpenNewAccount(p\_account\_id IN NUMBER, p\_customer\_id IN NUMBER, p\_account\_type IN VARCHAR2, p\_balance IN NUMBER);

PROCEDURE CloseAccount(p\_account\_id IN NUMBER);

FUNCTION GetTotalBalance(p\_customer\_id IN NUMBER) RETURN NUMBER;

END AccountOperations;

/

CREATE OR REPLACE PACKAGE BODY AccountOperations AS

PROCEDURE OpenNewAccount(p\_account\_id IN NUMBER, p\_customer\_id IN NUMBER, p\_account\_type IN VARCHAR2, p\_balance IN NUMBER) IS

BEGIN

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified)

VALUES (p\_account\_id, p\_customer\_id, p\_account\_type, p\_balance, SYSDATE);

COMMIT;

END OpenNewAccount;

PROCEDURE CloseAccount(p\_account\_id IN NUMBER) IS

BEGIN

DELETE FROM Accounts

WHERE AccountID = p\_account\_id;

COMMIT;

END CloseAccount;

FUNCTION GetTotalBalance(p\_customer\_id IN NUMBER) RETURN NUMBER IS

v\_total\_balance NUMBER := 0;

BEGIN

SELECT SUM(Balance) INTO v\_total\_balance

FROM Accounts

WHERE CustomerID = p\_customer\_id;

RETURN v\_total\_balance;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RETURN 0;

END GetTotalBalance;

END AccountOperations;