**Exercise 2: Error Handling**

**Scenario 1:** Handle exceptions during fund transfers between accounts.

* + **Question:** Write a stored procedure **SafeTransferFunds** that transfers funds between two accounts. Ensure that if any error occurs (e.g., insufficient funds), an appropriate error message is logged and the transaction is rolled back.

ANS:

CREATE OR REPLACE PROCEDURE SafeTransferFunds(p\_from\_account IN NUMBER, p\_to\_account IN NUMBER, p\_amount IN NUMBER) IS

BEGIN

-- Ensure transaction consistency

SAVEPOINT before\_transfer;

-- Transfer funds

UPDATE Accounts

SET Balance = Balance - p\_amount

WHERE AccountID = p\_from\_account;

IF SQL%ROWCOUNT = 0 THEN

RAISE\_APPLICATION\_ERROR(-20001, 'Source account not found.');

END IF;

UPDATE Accounts

SET Balance = Balance + p\_amount

WHERE AccountID = p\_to\_account;

IF SQL%ROWCOUNT = 0 THEN

RAISE\_APPLICATION\_ERROR(-20002, 'Destination account not found.');

END IF;

COMMIT;

EXCEPTION

WHEN OTHERS THEN

ROLLBACK TO before\_transfer;

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

END;