**Exercise 4: Functions**

**Scenario 3:**

**CODE:**

***-- Creating Customers Table***

CREATE TABLE Customers (

CustomerID NUMBER PRIMARY KEY,

Name VARCHAR2(100),

DOB DATE,

Balance NUMBER,

LastModified DATE

);

***-- Inserting Values into Customers Table***

BEGIN

INSERT INTO Customers VALUES (1, 'Alice Reddy', TO\_DATE('1950-05-10', 'YYYY-MM-DD'), 12000, SYSDATE);

INSERT INTO Customers VALUES (2, 'Bob Singh', TO\_DATE('1990-08-21', 'YYYY-MM-DD'), 8000, SYSDATE);

INSERT INTO Customers VALUES (3, 'Carol Mehta', TO\_DATE('1962-01-15', 'YYYY-MM-DD'), 15000, SYSDATE );

INSERT INTO Customers VALUES (4, 'David Rao', TO\_DATE('1985-12-01', 'YYYY-MM-DD'), 9500, SYSDATE);

INSERT INTO Customers VALUES (5, 'Esha Iyer', TO\_DATE('1945-03-25', 'YYYY-MM-DD'), 20000, SYSDATE);

END;

***-- Creating Accounts table***

CREATE TABLE Accounts (

AccountID NUMBER PRIMARY KEY,

CustomerID NUMBER,

AccountType VARCHAR2(20),

Balance NUMBER,

LastModified DATE,

FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)

);

***-- Inserting Values into Accounts table***

BEGIN

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified) VALUES (1, 1, 'Savings', 1200, SYSDATE);

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified) VALUES (2, 2, 'Checking', 800, SYSDATE);

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified) VALUES (3, 3, 'Savings', 15000, SYSDATE);

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified) VALUES (4, 4, 'Checking', 9500, SYSDATE);

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified) VALUES (5, 5, 'Savings', 20000, SYSDATE);

END;

***-- Function to check if an account has at least the specified minimum balance***

CREATE OR REPLACE FUNCTION HasSufficientBalance (

AccountNumber Number,

MinimumAmount Number

)

RETURN BOOLEAN

AS

Amount NUMBER;

BEGIN

SELECT Balance INTO Amount

FROM Accounts

WHERE AccountID=AccountNumber;

IF Amount>=MinimumAmount THEN

RETURN TRUE;

ELSE

RETURN FALSE;

END IF;

END;

/

***-- testing the HasSufficientBalance function***

DECLARE

accountNumber NUMBER:=1;

minimumAmount NUMBER:=1000;

result BOOLEAN;

BEGIN

result:=HasSufficientBalance(accountNumber,minimumAmount);

IF result THEN

DBMS\_OUTPUT.PUT\_LINE('Yes, the customer with Account ID: ' || accountNumber || ' has at least ₹' || minimumAmount);

ELSE

DBMS\_OUTPUT.PUT\_LINE('No, the customer with Account ID: ' || accountNumber || ' does not have ₹' || minimumAmount);

END IF;

END;

/

**OUTPUT:**



