**Exercise 4: Functions**

**Scenario 1: CalculateAge function.**

CREATE OR REPLACE FUNCTION CalculateAge(p\_DOB DATE) RETURN NUMBER IS

v\_age NUMBER;

BEGIN

v\_age := FLOOR(MONTHS\_BETWEEN(SYSDATE, p\_DOB) / 12);

RETURN v\_age;

END;

**Scenario 2: CalculateMonthlyInstallment function.**

CREATE OR REPLACE FUNCTION CalculateMonthlyInstallment(p\_LoanAmount NUMBER, p\_InterestRate NUMBER, p\_DurationYears NUMBER) RETURN NUMBER IS

v\_monthlyInstallment NUMBER;

BEGIN

v\_monthlyInstallment := (p\_LoanAmount \* p\_InterestRate / 100 / 12) / (1 - POWER(1 + p\_InterestRate / 100 / 12, -p\_DurationYears \* 12));

RETURN v\_monthlyInstallment;

END;

**Scenario 3: HasSufficientBalance function.**

CREATE OR REPLACE FUNCTION HasSufficientBalance(p\_AccountID NUMBER, p\_Amount NUMBER) RETURN BOOLEAN IS

v\_balance NUMBER;

BEGIN

SELECT Balance INTO v\_balance FROM Accounts WHERE AccountID = p\_AccountID;

IF v\_balance >= p\_Amount THEN

RETURN TRUE;

ELSE

RETURN FALSE;

END IF;

END;