**Exercise 4: Functions**

Scenario 1: Calculate Age

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 CalculateAge;

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Scenario 2: Calculate Monthly Installment

CREATE OR REPLACE FUNCTION CalculateMonthlyInstallment(

p\_loan\_amount NUMBER,

p\_annual\_rate NUMBER,

p\_duration\_years NUMBER

) RETURN NUMBER IS

v\_monthly\_rate NUMBER;

v\_installment NUMBER;

BEGIN

v\_monthly\_rate := p\_annual\_rate / 12 / 100;

v\_installment := (p\_loan\_amount \* v\_monthly\_rate) / (1 - POWER(1 + v\_monthly\_rate, -p\_duration\_years \* 12));

RETURN v\_installment;

END CalculateMonthlyInstallment;

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cenario 3: Check Sufficient Balance

CREATE OR REPLACE FUNCTION HasSufficientBalance(

p\_account\_id NUMBER,

p\_amount NUMBER

) RETURN BOOLEAN IS

v\_balance NUMBER;

BEGIN

SELECT balance INTO v\_balance

FROM accounts

WHERE account\_id = p\_account\_id;

RETURN v\_balance >= p\_amount;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RETURN FALSE;

END HasSufficientBalance;

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