**Exercise 3: Stored Procedures**

**ANS1.**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest AS

BEGIN

UPDATE ACCOUNTS

SET BALANCE= BALANCE+(BALANCE\*0.01)

WHERE ACCOUNTTYPE='Savings';

COMMIT;

END;

/

BEGIN

ProcessMonthlyInterest;

END;

/

**======================================================================================**

**ANS2.**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus(DEPT IN EMPLOYEES.DEPARTMENT%TYPE,PERBON IN NUMBER) AS

BEGIN

UPDATE EMPLOYEES

SET SALARY= SALARY+(SALARY\* (PERBON/100))

WHERE DEPARTMENT=DEPT;

COMMIT;

END;

/

DECLARE

A VARCHAR2(50):=&A;

B NUMBER:=&B;

BEGIN

UpdateEmployeeBonus(A,B);

END;

/

**======================================================================================**

**ANS3.**

CREATE OR REPLACE PROCEDURE TransferFunds (

FROMID IN Accounts.AccountID%TYPE,

TOID IN Accounts.AccountID%TYPE,

AMOUNT IN NUMBER

) AS

VFBAL Accounts.Balance%TYPE;

VTOBAL Accounts.Balance%TYPE;

insufficient\_funds EXCEPTION;

BEGIN

SELECT Balance INTO VFBAL

FROM Accounts

WHERE AccountID = FROMID

FOR UPDATE;

SELECT Balance INTO VTOBAL

FROM Accounts

WHERE AccountID = TOID

FOR UPDATE;

IF AMOUNT > VFBAL THEN

RAISE insufficient\_funds;

ELSE

UPDATE Accounts

SET Balance = VFBAL - AMOUNT

WHERE AccountID = FROMID;

UPDATE Accounts

SET Balance = VTOBAL + AMOUNT

WHERE AccountID = TOID;

COMMIT;

END IF;

EXCEPTION

WHEN insufficient\_funds THEN

DBMS\_OUTPUT.PUT\_LINE('INSUFFICIENT FUNDS!!');

ROLLBACK;

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('AN UNEXPECTED ERROR OCCURRED: ' || SQLERRM);

ROLLBACK;

END;

/

DECLARE

A NUMBER:=&A;

B NUMBER:=&B;

C NUMBER:=&C;

BEGIN

TransferFunds(A,B,C);

END;

/

**=======================================================================================**