**Exercise 3: Stored Procedures**

**Scenario 1:** The bank needs to process monthly interest for all savings accounts.

* + **Question:** Write a stored procedure **ProcessMonthlyInterest** that calculates and updates the balance of all savings accounts by applying an interest rate of 1% to the current balance.

**Scenario 2:** The bank wants to implement a bonus scheme for employees based on their performance.

* + **Question:** Write a stored procedure **UpdateEmployeeBonus** that updates the salary of employees in a given department by adding a bonus percentage passed as a parameter.

**Scenario 3:** Customers should be able to transfer funds between their accounts.

* + **Question:** Write a stored procedure **TransferFunds** that transfers a specified amount from one account to another, checking that the source account has sufficient balance before making the transfer.

-- Savings Account Table

CREATE TABLE savings\_accounts (

account\_id NUMBER PRIMARY KEY,

customer\_id NUMBER,

balance NUMBER

);

-- Employees Table

CREATE TABLE employees (

emp\_id NUMBER PRIMARY KEY,

name VARCHAR2(50),

department VARCHAR2(50),

salary NUMBER

);

-- Bank Accounts Table for Transfers

CREATE TABLE bank\_accounts (

account\_id NUMBER PRIMARY KEY,

customer\_id NUMBER,

balance NUMBER

);

-- Savings Accounts

INSERT INTO savings\_accounts VALUES (101, 1, 5000);

INSERT INTO savings\_accounts VALUES (102, 2, 10000);

INSERT INTO savings\_accounts VALUES (103, 3, 15000);

-- Employees

INSERT INTO employees VALUES (1, 'Alice', 'Finance', 50000);

INSERT INTO employees VALUES (2, 'Bob', 'HR', 45000);

INSERT INTO employees VALUES (3, 'Charlie', 'Finance', 55000);

-- Bank Accounts

INSERT INTO bank\_accounts VALUES (201, 1, 20000);

INSERT INTO bank\_accounts VALUES (202, 2, 15000);

INSERT INTO bank\_accounts VALUES (203, 3, 18000);

COMMIT;

Scenario 1: Process Monthly Interest for Savings Accounts

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Scenario 2: Employee Bonus Update

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Scenario 3: Transfer Funds Between Accounts

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SELECT \* FROM savings\_accounts;

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SELECT \* FROM employees;

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SELECT \* FROM bank\_accounts;

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