**Exercise 7: Packages**

**Scenario 1:** Group all customer-related procedures and functions into a package.

* + **Question:** Create a package **CustomerManagement** with procedures for adding a new customer, updating customer details, and a function to get customer balance.

CREATE OR REPLACE PACKAGE CustomerManagement AS

PROCEDURE AddCustomer(p\_CustomerID IN NUMBER, p\_Name IN VARCHAR2, p\_DOB IN DATE, p\_Balance IN NUMBER);

PROCEDURE UpdateCustomer(p\_CustomerID IN NUMBER, p\_Name IN VARCHAR2, p\_DOB IN DATE, p\_Balance IN NUMBER);

FUNCTION GetCustomerBalance(p\_CustomerID IN NUMBER) RETURN NUMBER;

END CustomerManagement;

/

Package created.

**Scenario 2:** Create a package to manage employee data.

* + **Question:** Write a package **EmployeeManagement** with procedures to hire new employees, update employee details, and a function to calculate annual salary.

CREATE OR REPLACE PACKAGE EmployeeManagement AS

PROCEDURE HireEmployee(p\_EmployeeID IN NUMBER, p\_Name IN VARCHAR2, p\_Position IN VARCHAR2, p\_Salary IN NUMBER, p\_Department IN VARCHAR2);

PROCEDURE UpdateEmployee(p\_EmployeeID IN NUMBER, p\_Name IN VARCHAR2, p\_Position IN VARCHAR2, p\_Salary IN NUMBER, p\_Department IN VARCHAR2);

FUNCTION CalculateAnnualSalary(p\_EmployeeID IN NUMBER) RETURN NUMBER;

END EmployeeManagement;

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Package created.

**Scenario 3:** Group all account-related operations into a package.

* + **Question:** Create a package **AccountOperations** with procedures for opening a new account, closing an account, and a function to get the total balance of a customer across all accounts.

CREATE OR REPLACE PACKAGE AccountOperations AS

PROCEDURE OpenAccount(p\_AccountID IN NUMBER, p\_CustomerID IN NUMBER, p\_AccountType IN VARCHAR2, p\_Balance IN NUMBER);

PROCEDURE CloseAccount(p\_AccountID IN NUMBER);

FUNCTION GetTotalBalance(p\_CustomerID IN NUMBER) RETURN NUMBER;

END AccountOperations;

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Package created.