WEEK 2

**PL/SQL programming**

**Exercise 1: Control Structures**

**Scenario 1:** The bank wants to apply a discount to loan interest rates for customers above 60 years old.

* + **Question:** Write a PL/SQL block that loops through all customers, checks their age, and if they are above 60, apply a 1% discount to their current loan interest rates.

**Scenario 2:** A customer can be promoted to VIP status based on their balance.

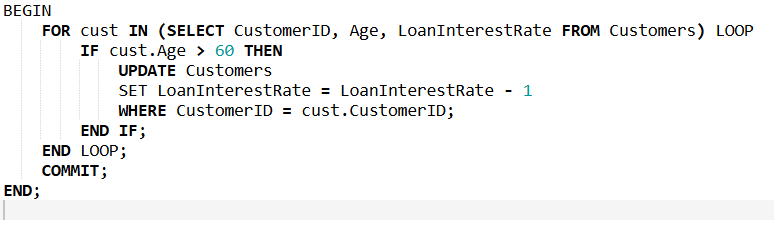
* + **Question:** Write a PL/SQL block that iterates through all customers and sets a flag IsVIP to TRUE for those with a balance over $10,000.

**Scenario 3:** The bank wants to send reminders to customers whose loans are due within the next 30 days.

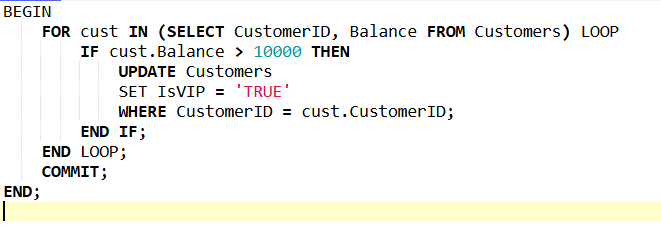
**Question:** Write a PL/SQL block that fetches all loans due in the next 30 days and prints a reminder message for each customer.

**Code:**

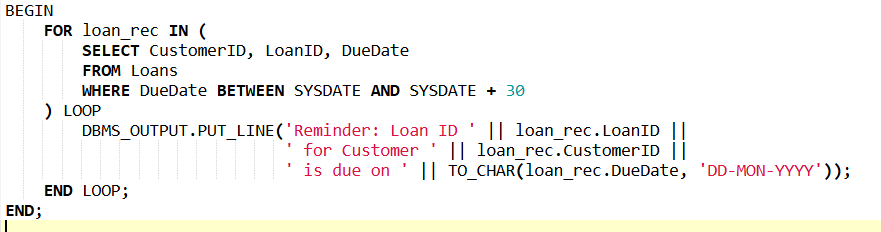
**Scenario 1: Apply 1% Discount for Customers Aged Above 60**



**Scenario 2: Set IsVIP Flag for Customers with Balance > $10,000**



**Scenario 3: Send Reminders for Loans Due in Next 30 Days**



**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.

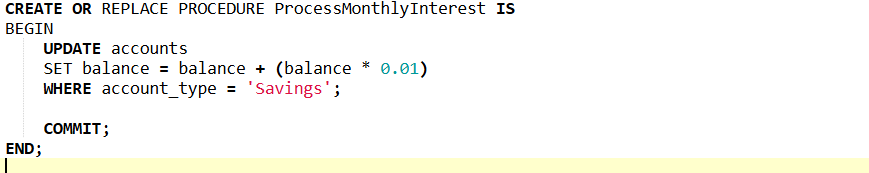
**Scenario 3:** Customers should be able to transfer funds between their accounts.

**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.

**Code:**

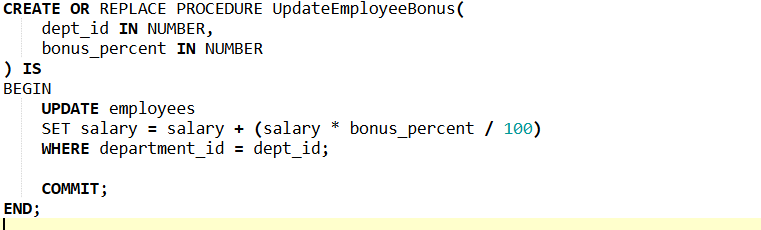
**Scenario 1: Process Monthly Interest**

(Assumes a table accounts with columns balance and account\_type, where account\_type = 'Savings' for savings accounts.)



**Scenario 2: Update Employee Bonus**

(Assumes an employees table with columns salary and department\_id.  
You pass, for example, dept\_id = 10 and bonus\_percent = 5 for a 5% bonus in department 10.)



**Scenario 3: Transfer Funds**

(Assumes an accounts table with account\_id and balance.)

