Pseudocode for Airgead Banking App

**Program Start**

Display “Airgead Banking” header
Display “Data Input” screen template
Prompt user for initialInvestmentAmount
Prompt user for monthlyDepositAmount
Prompt user for annualInterestRatePercent
Prompt user for numberOfYears
Validate initialInvestmentAmount is greater than 0
Validate monthlyDepositAmount is greater than or equal to 0
Validate annualInterestRatePercent is greater than 0
Validate numberOfYears is greater than 0
Display the entered values on the screen
Display “Press any key to continue”
Wait for user input to continue

**Create OOP Object**

Create object investmentCalculator using inputs
Store initialInvestmentAmount in object
Store monthlyDepositAmount in object
Store annualInterestRatePercent in object
Store numberOfYears in object

**Without Additional Monthly Deposits**

Display report title “Balance and Interest Without Additional Monthly Deposits”
Display column headers “Year, Year End Balance, Year End Earned Interest”
Set currentBalance to initialInvestmentAmount
Set monthlyDepositForReport to 0
For year from 1 to numberOfYears
Set yearlyInterestEarned to 0
For month from 1 to 12
Set openingAmount to currentBalance
Set depositedAmount to monthlyDepositForReport
Set totalAmount to openingAmount plus depositedAmount
Set monthlyInterest to totalAmount times ((annualInterestRatePercent / 100) / 12)
Set closingBalance to totalAmount plus monthlyInterest
Set currentBalance to closingBalance
Add monthlyInterest to yearlyInterestEarned
End For month

Display year, currentBalance, yearlyInterestEarned
End For year

**With Additional Monthly Deposits**

Display report title “Balance and Interest With Additional Monthly Deposits”
Display column headers “Year, Year End Balance, Year End Earned Interest”
Set currentBalance to initialInvestmentAmount
Set monthlyDepositForReport to monthlyDepositAmount
For year from 1 to numberOfYears
Set yearlyInterestEarned to 0
For month from 1 to 12
Set openingAmount to currentBalance
Set depositedAmount to monthlyDepositForReport
Set totalAmount to openingAmount plus depositedAmount
Set monthlyInterest to totalAmount times ((annualInterestRatePercent / 100) / 12)
Set closingBalance to totalAmount plus monthlyInterest
Set currentBalance to closingBalance
Add monthlyInterest to yearlyInterestEarned
End For month
Display year, currentBalance, yearlyInterestEarned
End For year

**Allow User to Test Different Values**

Display prompt “Would you like to enter new values (Y/N)?”
If user input is Y
Clear screen
Go back to “Program Start”
Else
Display “Goodbye”
End program

**OOP Design Notes (matches standards)**

Define class InvestmentCalculator
Define private member variables for investment amount, deposit, interest rate, years
Define public method printReportWithoutDeposits
Define public method printReportWithDeposits
Define helper method calculateMonthlyInterest
Keep main function limited to collecting input and calling class methods