**AirGead Banking App Psuedocode**

**Adam Vosburg**

**CS-210**

**Professor Thomas**

**AGBankingApp.h**

***Declare*** headers to share with cpp and main

***Declare*** the class

***Define*** Constructor initializing private variables (Initial Investment,Annual Interest rate, and Number of years)

***Define*** functions:

Create a method to call calculated interest.

Create a method to call an investment growth

Create a method to call a display showing values without monthly payment

Create a method to call a display showing values WITH monthly payments

**AGBanking.cpp**

***Define*** a Constructor that initializes variables with parameters given in .h file

***Define*** a Constructor for calculating interest

***Implement*** function from AGBankingApp for displaying year-end reports without monthly additional payment

Calculates investment growth using (month interest as annual interest/100) / 12

Initialize a variable for total $ with starting value of initial value

Initialize starting interest and closing balance.

***Loop*** each month (1 to the number of years to compound interest \* 12):

Call method calculating interest and increment monthly ++

Calculate incrementing balance by total interest + initial investment

Assign total (sum of monthly totals) for each year after loop runs, restarts loop per 12-month mark

Output the year, yearly balance, and interest earned over the period

***Implement*** function from AGBankingApp for displaying the year-end reports **WITH** additional monthly payments

Calculates investment growth using (month interest as annual interest/100) / 12

Initialize a variable for total $ with starting value of initial value

Initialize starting interest and closing balance.

***Loop*** each month (1 to the number of years to compound interest \* 12):

Call method calculating interest and increment monthly ++

Calculate incrementing balance by total interest + initial investment

Assign total (sum of monthly totals) for each year after loop runs, restarts loop per 12-month mark

Output the year, yearly balance, and interest earned over the period

**Main.cpp**

***Declare*** variables (Initial investment, Monthly deposit, Annual interest rate, Number of years)

***Declare*** a function that will print an AirGead Banking Menu display face initializing variables Initial investment, Monthly deposit, Annual Interest rate, and Number of years

**Declare** main function

***Output*** greeting

***Initialize*** variables with default values

***Loop*** indefinitely until user inputs a q or Q

Call AirGeadBankMenu

Output lines requesting user inputs (initial investment, annual percent rate, number of years)

User inputs for each of the inputs listed above

If any input is equal to 'q' or 'Q'

Output a farewell and break program and break from loop

Call the updated AirGead Banking Menu with user input values

***Create*** and output object displaying values WITHOUT monthly payment

***Output*** request for additional monthly payments

**Input** user value

***Call*** the updated AirGead Banking Menu with updated user values

***Create*** and output object displaying values WITH additional monthly payments

***Repeat Loop*** indefinitely until desired character q is input