class Investment

Declarations

private initial amount

private monthly deposit

private annual interest

private num years

private total interest yearly

private earned interest per month

private total per month

public new (amount, monthly depo, annual int, years, interest yearly, interest per month, total every month)

initial amount = amount

monthly deposit = monthly depo

annual interest = annual int

num years = years

total interest yearly = interest yearly

earned interest per month = interest per month

total per month = total every month

return

public void resetVariables ()

SET total interest yearly equal to zero

SET earned interest per month equal to zero

SET total per month equal to zero

SET initial amount equal to zero

return

public void calcWithMonthlyPayments ()

FOR every month of the number of years in num years

CALCULATE the interest earned for that month

CALUCLATE the total balance at the end of that month

INCREMENT the total balance for the current year

INCREMENT the total interest accrued for that year

IF the current month is the twelfth month of the year

Print out the total balance and the total interest accrued for the year

SET total interest for that year equal to 0

ENDIF

ENDFOR

return

public void calcWithoutMonthlyPayments()

FOR every month of the number of years in num years

CALCULATE the interest earned for that month

CALUCLATE the total balance at the end of that month

INCREMENT the total balance for the current year

INCREMENT the total interest accrued for that year

IF the current month is the twelfth month of the year

Print out the total balance and the total interest accrued for the year

SET total interest for that year equal to 0

ENDIF

ENDFOR

return

public void calcWithAndWithoutMonthlyPayments()

CALL calcWithMonthlyPayments

CALL resetVariables

CALL calcWithoutMonthlyPayments

return

endclass

FUNCTION getInput

FOR initial investment, monthly investments, interest rate, and number of years

PRINT out a prompt to request user input

OBTAIN user input

WHILE user input is not of the correct type

PRINT a message to the user prompting them for more input and warning them.

ENDWHILE

ENDFOR

ENDFUNCTION

CREATE pointer variables on the heap for initial investment, monthly investments, interest rate, and number of years, total interest yearly,

earned interest per month, and total per month

CALL getInput function with initial investment, monthly investments, interest rate, and number of years as arguments

CALL new method to create an instance of the Investment class by passing variables to the “new” method of the class.

CALL calcWithAndWithoutMonthlyPayments using Investment class instance

FREE the memory for initial investment, monthly investments, interest rate, number of years, total interest yearly, earned interest per month, and total per month