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# INFO 2820

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# Final Project Investment Portfolio

Pseudocode

**Create four new files**

Stocks.java – superclass

DividendStocks.java – implements Stocks

MutualFunds.java – implements Stocks

InvestmentsPortfolio.java – contains main methods and GUI

**Build Stocks class**

Declare private fields – String symbol, int shares, double purchasePrice, double currentPrice

Initialize private fields in a default constructor

Implement parameterized constructor for a stock asset

Implement public member methods:

Accessors for stocks – getSymbol(), getShares(), getCurrentPrice(), getPurchasePrice()

Mutators for stocks – setSymbol(), setShares(), setCurrentPrice(), getPurchasePrice()

Public void investmentValue() – shares \* purchasePrice

Public void currentValue() – shares \* currentPrice

Public void profitLoss – currentValue() – investmentValue()

Build DividendStocks Class extends Stocks

Declare private filed – Double divPaid

Initialize super and private field in constructor

Implement parameterized constructor for a dividend stock asset

Implement public member methods:

Accessor for dividend stock – getDivPaid()

Mutator – setDivPaid()

Override methods from Stocks class

Public void investmentValue() – shares \* purchasePrice + divPaid

Public void currentValue() – shares \* currentPrice + divPaid

Public void profitLoss – currentValue() – investmentValue()

Build MutualFunds Class extends Stocks

Declare private filed – String symbol, double dblShares , double purchasePrice, double currentPrice

Initialize super private fields in constructor

Implement parameterized constructor for a mutual funds asset

Implement public member methods:

Accessor for dividend stock – getDivPaid()

Mutator – setDivPaid()

Public void investmentValue() – shares \* purchasePrice

Public void currentValue() – shares \* currentPrice

Public void profitLoss – currentValue() – investmentValue()

Build InvestmentPortfolio

Declare Class Objects and ArrayList for each of the stock assets to store user input data

Stocks stock,

DividendStocks divStock

MutualFunds mutualFund

Arraylist<Stocks> stockList

ArrayList<DividendStocks> divStockList

ArrayList<MutualFunds> mfList

Implement methods for InvetmentPortfolio

addStock(), addDivStock(), addMutualFund() – adds stock objects to arrays

ModifyStock(), modifyDivStock(), modifyMutualFund() – modifies a stock in the arraylists using the set methods

RemoveStock() – removes a stock form the arraylists

writeToFile() – creates/opens a file, writes data to the file, saves the file

totalStockInvestmentValue(), totalDivStockInvestmentValue(), totalMFInvestmentValue() – totals investment value for all stocks in arraylists

totalStockValue(), totalDivStockValue(), totalMFValue() – total current value for all stocks in arraylists

totalStockProfitLoss(), totalDivStockProfitLoss(), totalMFProfitLoss() – totals profit/loss for all stocks in array lists

In main():

Implement JFrame and JSwing Components

JFrame – topFrame

Labels

Textboxes

TextAreas

ScrollPane

Buttons

Radio Buttons

Imlement methods in button/radio button events –

addStock(), modifyStock(), deleteStock(), writeToFile(), currentTotal(), profitLoss(), totalCurrentValue(), totalProfitLoss(), setStrings()

get user input and display results in a textArea and writesToFile(), display file in scrolled pane text area