

Student Q9: I am confused by the price updating part of the assignment. In the description, you give us three ranges of volatility to based our price movements off of but then you state "You will randomly decide if you will increment or decrement the price, then, you will calculate the percentage to be incremented or decremented within the range depending of the market volatility, which will be entered by the user in the simulator." Does that mean the user enters in the market volatility and for example it falls between the range of a high volatility that I then increment or decrement each stock that by a random number within the high volatility range? Please let me know if this is incorrect.

Answer Q9:

You will use random selection twice:

First- To determine if you increment or decrement the stock price

Second. To determine the percentage to increment/decrement based on the selected volatility range

Student Q8: How are we incooperating Period (start / end date) in the code? There is no data regarding it ? Do you want to record the date as well when we buy and sell stock?

Answer Q8: You need to keep track of transaction history, when did I buy X, and when I did sell X. Now (**IMPORTANT**), I will not buy X today, and then buy more X tomorrow or the day after. This would introduce a lot of complexity in the system, specially at time of selling... because which ones you would sell?

Student Q7: Regarding: "The amount to withdraw should not be greater than the cash balance in your account plus the dollar amount from selling all your stock positions at the moment of the transaction - all commissions and fees"

How are we calculating the commissions and fees , will it be a single transaction with a flat fee of 9.99?

Answer Q7: Same as in Question 6, it will be a flat rate of \$9.99.

Student Q6: When selling stocks from multiple companies at the same time (deleting a portfolio containing stock from Microsoft and Apple), would the fee be charged per company($9.99 * 2$ in this case) or just a flat (9.99)

Answer Q6: No, it is a transaction composed by two sells, it will be just \$9.99.

Student Q5: You've gone into a little detail about how you want the program to handle buying stocks, but how do you want it to handle the selling of stocks?

Answer Q5:

- Sell a stock
 - Enter the ticker
 - Ticker501 will seek in the DB (file) the current price for the ticker entered.
When testing, only tickers in the DB will be entered
 - Option 1. Enter number of stocks to sell
 - Only integer numbers, no decimals
 - After finding the current price of the stock to sell, the number of stock should be deducted from the total number of stocks and the value in dollars added to the Account Balance. (*You need to validate that the user do not sell more than she owns, if she enters a quantity larger than the one owned, Ticker501 should sell the total of stocks of the ticker entered*).
 - You may want to keep track of the gain/loss of this transaction.

Student Q4: I'm confused about the stock database that you referred to in the assignment instructions. Are you giving us the database as a file or are we making our own?

Answer Q4: I gave you the file with 25 tickers-company-price. You can use it as a Database. I may add more]ticker-company-price to test your program.

Student Q3: I'm not familiar with the terminology you used when talking about the Account Balance. What is a "Cash and Positions balance"?

Answer Q3: Account balance is the current state of your account. How much dollars are available to invest (buy more stocks) and how much you have invested. You can give the Account Balance in dollar amounts. (Although as an investor, it would be nice to see the dollars I have available, and all the stocks I own as an other way to display the Account Balance, but this is not required).

Cash and Positions balance. Cash balance is the value in dollars of the stocks I own. You may see it as if I would sell all the stocks I own in the whole account OR portfolio (depending if I am at the account or portfolio level), how much cash I would be able to withdraw. Position balance is the information about how many stocks I own of each company I own.

Student Q2: Could you clarify the requirements/what you are looking for for this section of the assignment:

Portfolio Balance (Single Portfolio)

- o Cash and Positions balance in dollar amount and percentage of the total portfolio.

Answer Q2a: See C-01

- o Positions Balance. The percentage of each stock in this portfolio. The amount in dollars of each stock in the portfolio. (The amount in dollars equivalent to selling all the stocks at the moment of report).

Answer Q2b: See C-02

- o Gain/Losses Report in dollar amounts based on: § Period (Start/end date)

Answer Q2c: See C-03

C-01 This should read: "Positions balance in dollar amount and percentage of the total portfolio". I removed the "Cash" because it does not make sense, the only place you should see the cash available is at the account level. In the example below the Teck portfolio is 45% of the total account investment, and it has a dollar value of \$55,368.

Teach Portfolio

Total investment: \$ 55,386

Percentage of Account: 45%

C-02. Each portfolio contains stocks. So, for example if I have in my portfolio "Tech" 50 Apple stocks, 50 Google stocks, 50 CISCO stocks, and 50 Facebook stocks, Ticker501 should tell me that "Tech" portfolio is:

\$ 6,437.50 - (25%) AAPL Apple Inc.

\$40,762.00 - (25%) GOOGL Google

\$ 1,525.00 - (25%) CSCO Cisco Systems, Inc.

\$ 6,661.50 - (25%) FB Facebook Inc.

C-03. Ticker501 keeps track of my gain/losses from the time I created the account. If I funded my account with \$50K at the beginning, and at the time of the report the available cash + the dollar amount of selling all my holdings (stocks) is \$58,345, then Ticker501 should display the amount of \$8,345 as gains.

Student Q1: ".. do you want the user to be able to buy stocks if they haven't yet created a portfolio, or must they have at least one portfolio before they can start purchasing stocks? (So that when the user decides to buy a stock, the program asks what portfolio it should be added to) Thanks..."

Answer Q1: "They need to have at least one portfolio. If the user has more than one portfolio, he/she would need to select which portfolio to save it in, or be 'inside' that portfolio."