First off I started this project by downloading Historical Prices from Google finance for 6 companies. These are huge list of prices that displayed daily updates for the past year on the particular stock. I had trouble loading the price list into the program when everything was in the same price list txt file, so I ended up having to make 6 different txt files with each company having their price list in its own txt file. I loaded these price list into 6 different vectors of strings and would convert string to double as needed throughout program.

Because these are daily changes to a price, you can see that the stocks will not be dropping or rising as drastically as one would think, this is why it is important to keep the X & Y factors to be rather small, in my case, it is important to keep X & Y to be under 15% since the increase and decrease are not large enough to be over 15% of original buying price for most stock cases. Better results can be demonstrated if X and Y are between 1%-15% range. If you want to see some profit, then I would suggest selling at a percentage around 5% increase and make decrease price higher at aroung 10 to 15 % . Again, this is because these are DAILY updates to the prices instead of them being yearly and apparently stock prices don’t drastically go up or down in a year, unless a rare phenomenon occurs like Donald Trump being elected president. It also dosent help that I chose bad losing stocks to work with. Since I don’t know anything about stocks, I just downloaded and used what was given to me which again were daily prices (very small change to stock price). If I would have known that this would happen, I would have just made my own prices in order to demonstrate larger changes in price allowing X & Y to be bigger.

In the buy function of this program, I set up an allowance for the thread. The allowance will allow the thread to spend a desired percentage of the available balance. This was done in order to prevent a thread from using all funds to buy stock in only one company. The allowance was to be 20% for simplistic purposes.

The number of transactions only increases when an actual transaction occurs. If there is not enough money to buy a share or the sell function was not able to make the transaction due to not meeting X&Y criteria, then the number of transactions will not increase.

The yield rate in this program was calculated using the instructions given in class where Profit is divided by cost; buy in all the times I ran the program, the yield rate was always over 90%. At the end of this program I call a function that prints all the information regarding stocks in which also displays the number of shares you still have in the respective companies, the initial cost of that share, and finally the current price. It is at this moment where you can see what I meant by the stock prices just not changing enough and why it’s important to have low X and Y values in order to see more action. The problem with this is that by having more frequent transactions means that the program will result in running a lot quicker which in turn does not allow server thread to participate as much.

Overall, I think there many different ways to interpret the problem. Some of the things I just had to assume on my own, and other things really could only be cleared by the instructor as some misunderstanding were cleared like sell function. I also believe downloading and using the downloaded price list was a mistake. It would be better to make up your own varying prices or just pick or choose prices off price list with bigger time gap in between. Daily changes in stock are not very significant so it is important to choose X AND Y values to be small for my program. I only realized this at the end unfortunately.