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Project 2 Final Writeup

Final Writeup for Stock Market Application

Abstract: Brief description of work

As I have come to the end of this project, I have accomplished all the initial functions of the application as well as attempted to implement some more advanced pieces of code. The initially planned functions that I have accomplished are a function to read a line of a file to get holding (Ticker and Quantity), a function to get price for Ticker, a function to value holding (Quantity x Price) and a function to generate the total value of the portfolio. Most of these initial functions were contained in my main class, Read Data. In order to organize my code better, I created a separate class called ReadPrice that had a method in which completed the function that got the price of each individual Ticker. Besides these main functions, I have implemented other functions such as a function that takes the total value of the portfolio and reads its out to an output file and a function that reads the pervious saved total value of the portfolio in the file and then compares it to the current total value of the portfolio. After I achieved everything, I went through the application and debugged all the problems. By debugging I was able to make everything function the way it was intended to. The point to all of this work being down is to be able to help people calculate the total value of their personal investment portfolios.

Future Work: Work that could be done to improve the application

There are a couple of ideas that I was not able to either figure out how to implement into the application or just did not want to complicate the program too much to the point where I would not get it done for the deadline. One function that I could not figure out how to make work was having the program read information, such as the Ticker and price, straight from the internet. Originally, I planned to use a Google API to read the price of each stock straight from Google finance but the API never connected correctly. Then after failing with Google finance I decided to try and use Yahoo finance instead. When trying to connect directly to yahoo finance, I kept

receiving either the wrong information or my application would tell me there was an error. Therefore, I had to drop the idea of taking the information right off the web and decided to take the current price and place it in a large file to read from. Another function that I initially thought about but did not implement into the application was developing a database. The database would keep a person's saved total value of the portfolio. By having this database, the program could then be changed to show the changes over time that occur to an individual's portfolio. If all of these functions were to implemented in the future then there would obviously be a need to debug the application once again.

Introduction: Describes the motivation of the work and provides an outline of the paper

The motivation behind all of this work is based on helping people with managing their stock market portfolios. As stated above, the main goal of the application will to be able to help people calculate the total value of their personal investment portfolios. As well as give people the option to keep their information from being placed on the internet.

Detailed System Description: Describes what the system does and how specific users interact with it. It also describes how classes interact (in UML).

In an overall view, the application will be gathering data from an individual's portfolio text file (StockMarketSheet.txt) and also reading data from a price file (price.txt). After doing so, the application will individually calculate total values for each Ticker. Then once it has done each Ticker the portfolio is holding then it will calculate the total value of the portfolio as a whole. At the end of the application the user will have to option to save and compare to the pervious total of their portfolio.

ReadPrice
-Ticker: String -NumberShares: int
+ readPrice() + readPrice(String Ticker) + getPrice(String Ticker)

Requirements: Describes what the specific details of the problem that the system is addressing.

A lot of people, including myself, have always laid out their investments on just an excel sheet and then hand calculated the total value of their portfolio. No one wants to plug in a bunch of sock tickers, number of shares and prices to watch what is happening to their investment. Another problem that this application may fix for some people is having to put your information on the internet. I know from experience that some people do not like to put their information and what they are doing on the internet in fear that others will be able to see or take it.

Literature Survey: Describes other work that has been done to address the same or similar problems.

Currently sites on the internet such as fidelity, yahoo finance, and google finance have addresses the same problem. These sites allow anyone to save their stocks and watch their share values rise and fall. Some people feel as though these applications are not safe enough and or don't want to plug in all their stocks. Therefore, it seems as though my stock market application could be another route for some people.

User Manual: Briefly describes how the system should be used.

This application should be straight forward and easy to use by anyone. At the start, the user is notified that the application only works on a Windows laptop. The user will first make sure they have a portfolio text file that lists all the tickers of the stocks they own and how many shares they own of each. This file must be named StockMarketSheet.txt and be placed in their C drive under a folder named data. Once that file has been created and correctly placed, the user will be able to plug their file into the application and it will do its job. The application will take the text file and pull out individual tickers and shares and match them each. Then the application will use its functions to calculate the total amount for each individual stock. Once the application has each value of the individual stock it will then put them all together to show the total value of the whole portfolio. In the end, the user only has to make sure their text file for their portfolio is correct and is connected to the application. Throughout the application, the user will be asked if they want to procced. For example, the user is asked to start the application and the user is also asked if they would like to save their total value for their portfolio. But besides entering numbers that go with the path they choose everything else is done for them.

Conclusion: Summarizes the goals accomplished by the system.

As stated earlier in this final report, the main goal is to make the process of calculating one's portfolio values easier and faster. With the completion of this application there have been many goals accomplished. First of all, the application does make the process of calculating one's portfolio values easier and faster. Also, the application gives an individual another option besides going online and using systems such as Fidelities to calculate their holdings. Lastly, the application had accomplished my goal of combining my love for computer science and finance into one project.

References/Bibliography:

The only reference that were consulted during the project have been the help of my father, my brother my professor, and the book assigned for use in class.