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Current Module: Data Structures
Project Name: Ticker

Project Goals:
To create a program what will take one command line argument which is a text file that has stock information in it. Then the program must take input from STDIN, this input will be differences in the stock. Then the program must output the original stock information, modified by what was taking in by STDIN, and sorted.

Considerations:
Maybe putting original stock info and the STDIN info in two separate trees. Then combining.

Design:
All the tree handling will be done in the tree library. The actual program will be made in ticker.c. It will first check to see if a valid command line argument was given. If it was valid, it will open the file and see if it is a valid file. If it is, it will then start interpreting the data and place it in a tree, in a sorted order. Then the program will ask for input from STDIN. It will try to interpret any data passed via STDIN and put it in a separate tree. After all the data is interpreted, I will then combine the trees and output the new stock prices from lowest to highest.

Data Flow:
Check for valid command line arg
Check file passed in command line arg
Add data in file pass to a tree
Get STDIN
Add data in STDIN to a tree
Combine trees
Output data from new tree

Potential Pitfalls:
I don't expect any pitfalls

Test Plan:
Pass large files (+10,000 lines)
Pass Large Input (+10,000 lines)
Null files
Null Input
Bad input
Bad files
Empty lines
Pass # signs
Rerun every test through valgrind

Running the program against itself.

Conclusion:
This project was a lot of fun and not to challenging for a weekend project. It was helpful that we went over a lot of what was in the project in class. I relied heavily at first on the libraries that we made in class pertaining to trees. Trees are fun to mess with, and I think I programmed everything the most efficient way I could. Wish I had more time to try to implement one of the other style of trees.