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Assignment2

1. For the program to work, I first had to sort all the csv files by “Stock Symbol”, After I did that, I put the sorted list into one csv file. After I merged all the files, I then sorted that merged list by the “Market Cap” by highest to lowest value then put all those values into another csv file. I then took that sorted csv file and only took the first 15 rows and put it into another csv file. After that I used a symbol for loop to go through the stock symbols and if it was found then it would print out that row, if not it would use a Boolean variable to mark that it wasn’t found and output a “Not Found” message. As for the algorithms, I used panda’s sort\_values function which uses merge sort, and a for loop for a search function.
2. As for algorithmic efficiency, since it uses merge sort to sort the values it will be 0(n\*Log n). This also applies to sorting by market value as well so same complexity applies of 0(n\*Log n), Reading the values of the Market cap would be using the panda function of read\_csv which is 0(n). As for my last function which is the search function, that total time is N \* 0(1)