CS113 - Problem Solving and Programming
Lab Assignment #7
Summer 2004

The purpose of this exercise is to give you further practice with the use of files, arrays and structs.

Your (wealthy) neighbor was so impressed with your implementation of his stock portfolio management program that he has asked you to add to its functionality. The program should input the same `stock` file as before, and to produce the same reports as before (i.e., a report of the total value of each category of the stock portfolio). However, you will now add a transaction function – after you input the stock file, your program should open another file with transactions of the form:

Stock Name	Transaction type	Number

The transaction type can be one of:

B - Buy the number of shares specified by `Number`
S - Sell the number of shares specified by `Number`
U - Update the share price using the value specified by `Number`

Note that the transaction type determines what the `Number` portion of the transaction is to be used for. Each transaction should be applied to the proper value within the stock database. The output should look the same as in the previous assignment, but should reflect all the changes made to the stock portfolio by the transactions. Also, each transaction should be applied in the order in the file – for example, if a "buy" transaction occurs, followed by an "update," the amount of the buy should be at the original price, not the new (updated) price.

At the end of the output, in addition to the total value of the portfolio, the total dollar amount of shares bought and shares sold should be output, and the total change in the portfolio values, compared to the original, should also be output. This last number could be either negative or positive, depending upon whether the total portfolio increased or decreased in value.