CS 122 – Homework #2 – "Buying Stocks" – due February 8, 2019

Suppose you work at a stockbroker's office. Clients come into the office to invest their money: to buy shares of companies or exchange-traded funds. You will write a program that interactively asks about the details about the transaction. The program will calculate the cost of each purchase. The purpose of this program is to practice loops, if-then situations, and interactive I/O.

First, ask the user how many stocks he or she wishes to buy. You may assume that the user will enter a positive integer. For each stock, ask the user for 3 pieces of information:

- The stock symbol, which is 1-4 capital letters
- The number of shares to buy, which is a positive integer
- The price per share, which is a real number

Your program will then calculate the following for each stock:

- The total market value of this purchase, which is the shares multiplied by the price
- The stockbroker's commission, which is determined by the following table. As you can see, the brokerage firm offers a reduced commission for SPY and VOO, to encourage the investment in ETFs that track the S&P 500 index.

Stock symbol	Market value	Commission
SPY or VOO	Any	$ 25.00
All other symbols	Under $10,000	$ 50.00
	$10,000 or more	0.5% of the market value

- The total cost of buying the stock, which is the market value plus the commission.

After the user has entered all of the stock information, your program should print a summary, which shows the total market value of all stocks bought, total commission, and total purchase cost. This information will appear at the end of the report.

Please look carefully at the format of the output below. Your program should match this output format as closely as possible. Notice that the purchases are numbered starting at 1 for the convenience of the user. When you print the market value of each purchase, you should format the number of shares to allocate up to a 4-digit number, right justified. The ticker symbol should be formatted to allocate up to 4 letters, left justified. The monetary figures should all be formatted to accommodate up to an amount of $ 9999999.99. Please line up the dollar signs vertically.

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Welcome to the Stock Broker!

How many securities would you like to purchase?   3


Purchase # 1:
Enter ticker symbol:            IBM

How many shares are you buying?  100

What is the share price?         134.42

 100 shares of IBM  is worth $    13442.00
Commission is                $       67.21
Cost to purchase is          $    13509.21


Purchase # 2:
Enter ticker symbol:            KO

How many shares are you buying?  200

What is the share price?         48.13

 200 shares of KO   is worth $     9626.00
Commission is                $       50.00
Cost to purchase is          $     9676.00


Purchase # 3:
Enter ticker symbol:            SPY

How many shares are you buying?  300

What is the share price?         269.81

 300 shares of SPY  is worth $    80943.00
Commission is                $       25.00
Cost to purchase is          $    80968.00

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Total market value is        $   104011.00
Total commission is          $      142.21
Total purchase cost is       $   104153.21
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