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ITMD 513 Open Source Programming

Professor Dr. Sam

Hw1

1-17-19

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'''
Deborah Barndt
1-14-19
StockTransaction.py
hw1: Stock Transaction Program

This program will display the amount of money Joe paid for the stock, the amount
of commission Joe paid his broker when he bought the stock, the amount Joe sold
the stock, the amount of commission Joe paid his broker when he sold the stock,
and the amount of money Joe had left when he sold the stock and paid his broker
(both times). If the amount is positive, then Joe made a profit. If the amount
is negative, then Joe lost money.

Written by Deborah Barndt.
'''

numShares = 2000          # number of shares purchased
purchasePrice = 40.00      # purchase price per share
commissionRate = 0.03      # commission is 3%
sellPrice = 42.75          # selling price per share
numSold = 2000             # number of shares sold

'''
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24  # Testing values
25
26  # Test value set 1
27  numShares = 2500          # number of shares purchased
28  purchasePrice = 50.00     # purchase price per share
29  commissionRate = 0.03     # commission is 3%
30  sellPrice = 53.50         # selling price per share
31  numSold = 2500            # number of shares sold
32
33  #Test value set 2
34  numShares = 3000          # number of shares purchased
35  purchasePrice = 30.00     # purchase price per share
36  commissionRate = 0.03     # commission is 3%
37  sellPrice = 32.75         # selling price per share
38  numSold = 3000            # number of shares sold
39
40  # Test value set 3
41  numShares = 1000          # number of shares purchased
42  purchasePrice = 20.00     # purchase price per share
43  commissionRate = 0.03     # commission is 3%
44  sellPrice = 23.25         # selling price per share
45  numSold = 1000            # number of shares sold
46  '''
47
48  # Calculate the amount paid for the stocks.
49  amountPaid = numShares * purchasePrice
50
51  # Calculate the commission paid to broker from purchase.
52  purchaseCommission = amountPaid * commissionRate
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53
54      # Calculate the total paid for the stock.
55      totalPaid = amountPaid + purchaseCommission
56
57      # Calculate the amount the stocks sold for.
58      stockSold = numSold * sellPrice
59
60      # Calculate the commission paid to broker from sale.
61      sellCommission = stockSold * commissionRate
62
63      # Calculate the total amount received from selling the stock.
64      totalReceived = stockSold - sellCommission
65
66      # Calculate the profit or loss from the stock and the broker.
67      totalProfitLoss = totalReceived - totalPaid
68
69      # Display the results.
70      print('Amount Joe paid for stocks: $', \
71            format(totalPaid, '.2f'))
72      print('Amount broker was paid for purchase: $', \
73            format(purchaseCommission, '.2f'))
74      print('Amount Joe sold the stocks: $', \
75            format(totalReceived, '.2f'))
76      print('Amount broker was paid for sale: $', \
77            format(sellCommission, '.2f'))
78
79      # Display the results if Joe lost money or made a profit.
80      if totalProfitLoss < 0:
81          print('Joe lost at total of $', \
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82              format(int(totalProfitLoss), '.2f'))
83      else:
84          print('Joe made a profit of $', \
85              format(totalProfitLoss, '.2f'))
86
```

87 Output Results:

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>>>
 RESTART: G:\ITMD 513 Open Source Programming Python\hw1\StockTransaction.py
Amount Joe paid for stocks: $ 82400.00
Amount broker was paid for purchase: $ 2400.00
Amount Joe sold the stocks: $ 82935.00
Amount broker was paid for sale: $ 2565.00
Joe made a profit of $ 535.00
>>>
 RESTART: G:\ITMD 513 Open Source Programming Python\hw1\StockTransaction.py
Amount Joe paid for stocks: $ 128750.00
Amount broker was paid for purchase: $ 3750.00
Amount Joe sold the stocks: $ 129737.50
Amount broker was paid for sale: $ 4012.50
Joe made a profit of $ 987.50
>>>
 RESTART: G:\ITMD 513 Open Source Programming Python\hw1\StockTransaction.py
Amount Joe paid for stocks: $ 92700.00
Amount broker was paid for purchase: $ 2700.00
Amount Joe sold the stocks: $ 95302.50
Amount broker was paid for sale: $ 2947.50
Joe made a profit of $ 2602.50
>>>
 RESTART: G:\ITMD 513 Open Source Programming Python\hw1\StockTransaction.py
Amount Joe paid for stocks: $ 20600.00
Amount broker was paid for purchase: $ 600.00
Amount Joe sold the stocks: $ 22552.50
Amount broker was paid for sale: $ 697.50
Joe made a profit of $ 1952.50
>>>
 RESTART: G:\ITMD 513 Open Source Programming Python\hw1\StockTransaction.py
Amount Joe paid for stocks: $ 82400.00
Amount broker was paid for purchase: $ 2400.00
Amount Joe sold the stocks: $ 82935.00
Amount broker was paid for sale: $ 2565.00
Joe made a profit of $ 535.00
>>>
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