

CS10 Python Programming Homework 3

1. You must turn in your program listing and output for each program set. Start a new sheet or sheets of paper for each program set. Each program set must have your student name, student ID, and program set number/description.
2. You must STAPLE (not stapled assignments will not be graded resulting in a zero score) your programming assignment and collate them accordingly. Example Program set 1 listing and then output, followed by Program Set 2 listing and output and so on.
3. Please format you output properly, for example all dollar amounts should be printed with 2 decimal places. Make sure that your output values are correct (check the calculations).
4. Each student is expected to do their own work. **IF IDENTICAL PROGRAMS ARE SUBMITTED, EACH IDENTICAL PROGRAM WILL RECEIVE A SCORE OF ZERO.**

Program 1 Using Functions

Stock Transaction Program

Last month Joe purchased some stock from StockTrade.

1. Write a function(s) to allow the user to input the followings as many times as he/she wants until the user decides that it is done.
 1. The name of the
 2. StockNumber of shares Joe bought
 3. Stock purchase price
 4. Stock selling price
 5. Broker commission
2. Write function(s) to calculate: and:
 1. The amount of money Joe paid for the stock (number of shares bought * purchase price)
 2. The amount of commission Joe paid his broker when he bought the stock. (Amount he paid for stocks * commission in percent)
 3. The amount that Jim sold the stock for. (number of shares * selling price)
 4. The amount of commission Joe paid his broker when he sold the stock. (Amount he sold shares * commission in percent)
 5. Calculate the amount of money Joe had left when he sold the stock and paid his broker (both times). If this amount is positive, then Joe made a profit. If the amount is negative, then Jim lost money.
 $\text{Profit/loss} = (\text{amount paid to buy stocks} + \text{commission}) - (\text{amount for sold stocks} - \text{commission})$
3. Write function(s) to display the following paid for the stock(s) that Joe had transacted (if Joe entered 5 sets of stocks transactions then output 5 sets of stocks).
 1. The Name of the Stock
 2. The amount of money Joe paid for the stock (number of shares bought * purchase price)
 3. The amount of commission Joe paid his broker when he bought the stock. (Amount he paid for stocks * commission in percent)
 4. The amount that Jim sold the stock for. (number of shares * selling price)
 5. The amount of commission Joe paid his broker when he sold the stock. (Amount he sold shares * commission in percent)
 6. Display the amount of money Joe had left when he sold the stock and paid his broker (both times). If this amount is positive, then Joe made a profit. If the amount is negative, then Jim lost money.
 $\text{Profit/loss} = (\text{amount paid to buy stocks} + \text{commission}) - (\text{amount for sold stocks} - \text{commission})$

4. Write the main() function to call the above functions , similar to the sample below:

```
def main():  
  
    load() #to input the values  
    calc()  
    print()
```

Program 2 Strings

Write a program to check whether a string entered is a palindrome. A string is a palindrome if it reads the same forward and backwards. The words “mom, ‘dad”, “noon” for instance are palindromes.

1. write a function def isPalindrome to check if the string entered is a palindrome.
- 2, write the main function to allow the user to enter the string and prints if it is a palindrome or not.