CMPSC-132: Programming and Computation II
Fall 2019

Lab #4

Due Date: 09/20/2019, 11:59PM EST

Read the instructions carefully before starting the assignment. Make sure your code follows the stated guidelines to ensure full credit for your work.

Instructions:

- The work in this lab must be completed alone and must be your own.
- Download the starter code file from the LAB4 Assignment on Canvas. **Do not change the function names or given started code on your script.**
- A doctest is provided as an example of code functionality. Getting the same result as the doctest does not guarantee full credit. You are responsible for debugging and testing your code with enough data, you can share ideas and testing code during your recitation class. As a reminder, Gradescope should not be used to debug and test code!
- Each function must return the output (Do not use print in your final submission, otherwise your submissions will receive a -1 point deduction)
- **Do not include test code outside any function in the upload. Printing unwanted or ill-formatted data to output will cause the test cases to fail. Remove all your testing code before uploading your file (You can also remove the doctest). Do not include the input() function in your submission.**

Goal:

[10 pts] Write the class *BadSodaMachine* that will represent a typical soda vending machine (product name, price). An instance of *BadSodaMachine* has access to three methods, *purchase*, *deposit* and *restock* that will describe its interaction with the user **returning** strings. This vending machine does not give you money back if you don't make a purchase. *Tip*: use the string *format* method to construct the strings

```
>>> m = BadSodaMachine('Coke', 10)
>>> m.purchase()
'Product out of stock'
>>> m.purchase(2)
'Product out of stock'
>>> m.restock(3)
'Current soda stock: 3'
>>> m.purchase()
'Please deposit $10'
>>> m.deposit(7)
'Balance: $7'
>>> m.purchase()
'Please deposit $3'
>>> m.purchase(2)
'Please deposit $13'
>>> m.deposit(5)
'Balance: $12'
>>> m.purchase()
'Coke dispensed, take your $2'
>>> m.deposit(20)
'Balance: $20'
>>> m.purchase(2)
```

```
'Coke dispensed'
>>> m.deposit(15)
'Sorry, out of stock. Take your $15 back'
>>> x = BadSodaMachine('Dr. Pepper', 8)
>>> x.restock(1)
'Current soda stock: 1'
>>> x.deposit(8)
'Balance: $8'
>>> x.purchase(2)
'Current soda stock: 1'
>>> x.purchase()
'Dr. Pepper dispensed'
```

- Quotes mean method returned a string, no need to append them in your code
- Return output with the sentences provided. Solution is not case sensitive, which means Balance: $10 is the same as balance: $10, but is not the same as Balance= $10

Deliverables:

- Submit your code with the file name LAB4.py to the Lab4 GradeScope assignment before the due date