

CMPT120 - Program 9 (prog9yourLastName.py)

Name the Item class file **itemYourLastName.py**

Program Due: Monday, November 25th, before 1:30 p.m. (saved, submitted and printed)

Absolutely no late programs will be accepted!!!!

It's time to go shopping! You have been hired by *Scam's Warehouse Club* to create a program that will track a guest's shopping list. Each **Item** in the list has a name, a quantity and a unit price.

This program lets us exercise the concept of an array of objects.

Items on our list will consist of the name of the item, the quantity of that item and the item's unit price.

The program's menu should appear as shown below. Please **order and number** the menu choices as shown below.

1. Add an item to the list
2. Delete an item from the list(*)
3. Print each item in the list
4. Search for a user-specified item in the list
5. Count the total number of items in the list
6. Total the cost of the items in the list
7. Determine whether the list is empty
8. Clear the list
0. Quit

Each menu command should display informative prompt messages as well as print a message indicating the result of processing that command. You will need to write a function for each menu option. Be sure to pass your list (and any other required parameters) to each function. Remember the rule about naming formal and actual parameters!

See the sample program run for example prompt and output messages. *Option 2 is an optional "challenge". (Include it in the menu even if you don't do the challenge!)

We will use an **input file** to get the initial data for this program. The input file will contain a line that specifies the number of Items in the file, followed by the Name, Quantity and Price of each Item (**in this order!**), each input value on a line by itself. Here is an example of what the input file will look like:

```
2
book
5
15.00
dvd
8
20.00
```

Your program should start by asking for the name of the initial input file, then reading in and adding those Items to your list. After that, present the menu -- all of the rest of the data will be entered via the keyboard.

Be sure to submit your test data input file(s) with your program.

Sample Program Run (assume the input file from above)

Please enter the path and name for the data file: **C:\\Users\\Public\\prog10input.txt**
Thank you.

<prints menu>

Please enter your choice: **1**

Please provide information about the item to add.

Please enter the name: **Cereal**

Please enter the quantity: **4**

Please enter the unit price: **4.00**

Cereal has been added to the cart.

<prints menu>

Please enter your choice: **1**

Please provide information about the item to add.

Please enter the name: **Bananas**

Please enter the quantity: **3**

Please enter the unit price: **0.80**

Bananas has been added to the cart.

<prints menu>

Please enter your choice: **5**

Your cart contains a total of 20 items.

<prints menu>

Please enter your choice: **6**

The total price of all of your items is \$253.40.

<prints menu>

Please enter your choice: **4**

Please enter the name of the item to find in your cart: **Cereal**

Yes, you have 4 Cereal at \$4.00 each.

<prints menu>

Please enter your choice: **2**

Please enter the name of the item to delete from your cart: **Pizza**

Sorry, but your cart does not contain the item pizza.