# Project 1

## CS 1411.001

### Due  at 11:59 PM on 4/16/2012

**Late submissions will not be graded**

Write and submit the program described below.  The program should include the following:

- Use functions where it makes sense.
- Repeating code should be in a function.
- Functions should never be longer than my screen.
- Meaningful variable, function names, and file names.
- Comments
    - All of the comments described in previous assignments
    - I should never have to read your code to know what a function does
    - If you find a piece of code online and it isn't something standard (i.e. something you could find in your text book or I've shown you in lab) then it requires a description of what it does and why. If you don't know what a piece of code does, don't use it!
- Output to the screen should be easy to read and understand.
- Your programs should not crash regardless of what the user enters or if files get moved. It should exit out properly.

Your project will be to create a management/shopping program from a grocery store. The grocery store has a list of items they sell. Each item has associated with it a quantity (how many of the item) and price (the cost of item). Each mode allows for viewing of this information and may cause changes to it. Any changes made to this list should be saved and the next running of the program should use this updated list. This means you will be reading and writing to a text file.

I have attached an text file with a list of items, their quantities, and prices for you to use. There is only a single space between each column. There is a newline between each new entry.

The column order is:

Item_name Quantity Price

I will only use one word item names.


**NOTE:** Your text file should be named "grocery_stock.txt". This will be the name of the text file I will use when I test your program. I do not want to have to go into your code and change the text file name.  I will be using my own text file, so make sure that you don't edit the format of the text file!

Upon start up, you should prompt the user for which mode they'd like to enter.

Phase 1 - Management mode

When the user selects management mode, they should be allowed to do the following:

1. Add a new product to the list (must also add how many of the item and its cost)
2. Remove a product from the list
3. Change the quantity of an item
4. Change the price of an item
5. View items and their quantity and price

Phase 2 - Shop mode

When the user selects shop mode, they should be allowed to do the following:

1. Add items to their cart
   - Here the user should be allowed to select an item and the number they want of an item. They should be allowed to add multiple items to their cart.
2. Remove items from their cart
   - Here the user should be allowed to remove an as many as they want of an item from their cart.
3. Check out
   - Here the program should calculate the total cost of their purchase and remove the items that were sold from the items list. You should not update list until t he user checks out! They can cancel their shopping any time previously without affecting the list.

4.  View items and their quantity and price

I recommend that you complete Phase 1 before attempting Phase 2. There is code that can be reused from Phase 1 in Phase 2.

Be sure to always close your text files when you're reading or writing.

Submit the assignment to blackboard with the following name:

eraidername_proj1.py for the assignment

Replacing eraidername with your own eraider username.