Sam Ormerod
2020-Sep-1
Foundations of Programming: Python
Assignment 08

CD Inventory Round 5

Intro

This week we jumped into Object Oriented Programming also known as OOP[1]. The assignment is our fifth iteration of our CD Inventory program while utilizing OOP.

OOP

Object Oriented Programming has been difficult for me to fully grasp. I still don't feel confident in my understanding of it. Going through the labs we looked at the standard components that make a class which are Fields[2], Constructors[3], Attributes[4], Properties[5] and Methods[6]. Please see Figure 1 showing the order of the components.

```
class ClassName():

    # -- Fields -- #
    # -- Constructor -- #
    # -- Attributes -- #
    # -- Properties -- #
    # -- Methods -- #
```

Figure 1 - Standard components of a Class

It wasn't until class on tuesday when we were going over the labs that I realized that I had previously done the labs incorrectly. After class I re-read through the module document, re-watched Dirks videos and reached out to developer friends that work with PHP, HTML and Javascript in an attempt to gain a further understanding, but i'm still vastly confused when it comes to OOP.

---

[1] FDN_Py_Module_08.pdf page 1
[2] FDN_Py_Module_08.pdf page 3
[3] FDN_Py_Module_08.pdf page 3
[4] FDN_Py_Module_08.pdf page 5
[5] FDN_Py_Module_08.pdf page 6
[6] FDN_Py_Module_08.pdf page 10

Assignment

This is our fifth iteration of the CD Inventory program. This has been a constant state of frustration with the cliche of one step forward and two steps backward. After spending roughly 7-9 hours on the assignment I had narrowed my issues to the load and save functionality. It took an additional 2 hours before I would learn what a values statement was and how it was the pivotal piece of information needed for the load and save to function. Please see Figure 2 for the value statement.

```
def values(self):
    return [self.cd_id, self.cd_title, self.cd_artist]
```

Figure 2 - THE VALUE STATEMENT

Summary

During our week seven class we were briefed that module eight would probably be the hardest concept to fully understand. Even though I was able to write a program that processes as accepted I am not confident in my understanding of OOP. Also this is the last knowledge document for this class and I couldn't be more excited.

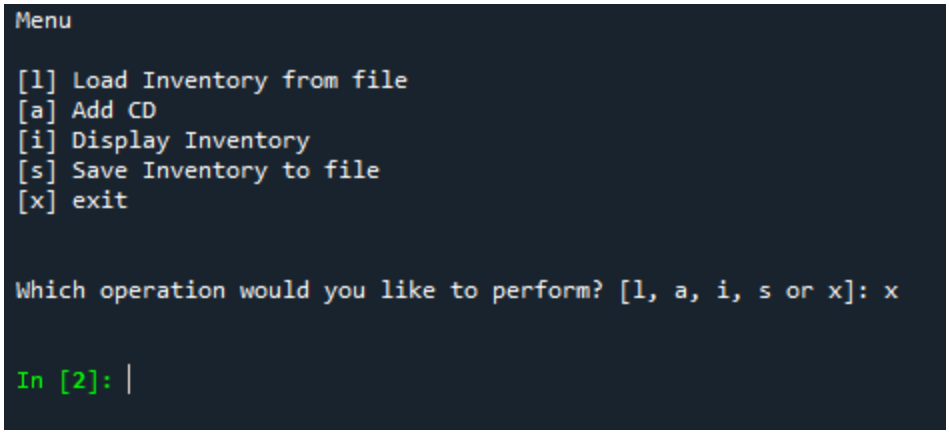
Appendix

Full program available on GitHub

Spyder Screenshots:

```
In [1]: runfile('C:/_Programming/Mod_08/Assignment08/CDInventory.py', wdir='C:/_Programming/Mod_08/
Assignment08')
Menu

[l] Load Inventory from file
[a] Add CD
[i] Display Inventory
[s] Save Inventory to file
[x] exit


Which operation would you like to perform? [l, a, i, s or x]: i

======= The Current Inventory: =======
ID      CD Title (by: Artist)

1       sam (by:sam)
2       man (by:man)
======================================
```

```
Menu

[l] Load Inventory from file
[a] Add CD
[i] Display Inventory
[s] Save Inventory to file
[x] exit


Which operation would you like to perform? [l, a, i, s or x]: a


Enter an ID: 3

Enter the CD's Title: bat

Enter the Artist's Name: bat
======= The Current Inventory: =======
ID      CD Title (by: Artist)

1       sam (by:sam)
2       man (by:man)
3       bat (by:bat)
=======================================
Menu

[l] Load Inventory from file
[a] Add CD
[i] Display Inventory
[s] Save Inventory to file
[x] exit


Which operation would you like to perform? [l, a, i, s or x]: s

======= The Current Inventory: =======
ID      CD Title (by: Artist)

1       sam (by:sam)
2       man (by:man)
3       bat (by:bat)
=======================================

Save this inventory to file? [y/n] y
```


Menu
[l] Load Inventory from file
[a] Add CD
[i] Display Inventory
[s] Save Inventory to file
[x] exit
Which operation would you like to perform? [l, a, i, s or x]: x
In [2]: