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2022-Mar-22

IT FDN 110 B Winter 2022: Foundations of Programming

Assignment08 Knowledge Document

Lesson learned in finishing assignment08

Introduction

Brief overview of some lessons learned through some experience I earned through finishing assignemtn08.

Experience gained 1:

In this project I created a class to define CD with 3 properties: id, title, and artist. Every time when I create a CD object I need to provide these 3 properties to initiate the creation of this object.
Also, I defined a non-static method values () which returns the CD object's 3 properties. Non-static method is different from static method. I need to call it with a CD object instead of directly calling it.
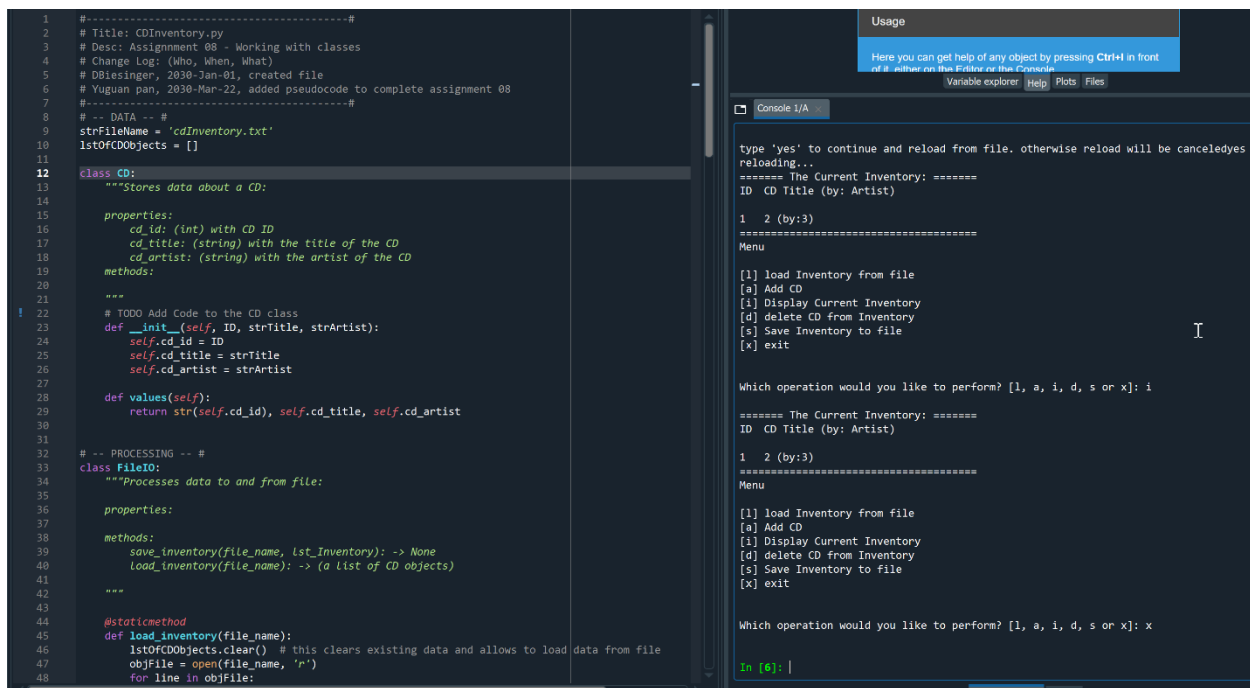
GitHub link:

[yuguanp/assignment08 (github.com)](github.com)

Summary

When doing modifying based on someone else's work it is very easy to generate bugs since some of the original scripts may not fit the new ones I add in, and causing functional scripts become bugs. Thus instead of spending time on debug later, reading through and try to understand the original scripts before modifying could be a smarter way.

Appendix


```python
 1    #------------------------------------------#
 2    # Title: CDInventory.py
 3    # Desc: Assignment 08 - Working with classes
 4    # Change Log: (Who, When, What)
 5    # DBiesinger, 2030-Jan-01, created file
 6    # Yuguan pan, 2030-Mar-22, added pseudocode to complete assignment 08
 7    #------------------------------------------#
 8    # -- DATA -- #
 9    strFileName = 'cdInventory.txt'
10    lstOfCDObjects = []
11
12    class CD:
13        """Stores data about a CD:
14
15        properties:
16            cd_id: (int) with CD ID
17            cd_title: (string) with the title of the CD
18            cd_artist: (string) with the artist of the CD
19        methods:
20
21        """
22        # TODO Add Code to the CD class
23        def __init__(self, ID, strTitle, strArtist):
24            self.cd_id = ID
25            self.cd_title = strTitle
26            self.cd_artist = strArtist
27
28        def values(self):
29            return str(self.cd_id), self.cd_title, self.cd_artist
30
31
32    # -- PROCESSING -- #
33    class FileIO:
34        """Processes data to and from file:
35
36        properties:
37
38        methods:
39            save_inventory(file_name, lst_Inventory): -> None
40            load_inventory(file_name): -> (a list of CD objects)
41
42        """
43
44        @staticmethod
45        def load_inventory(file_name):
46            lstOfCDObjects.clear()  # this clears existing data and allows to load data from file
47            objFile = open(file_name, 'r')
48            for line in objFile:
```

Fig.1 Screenshot of script successfully running in Spyder

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

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

1   2 (by:3)
1   2 (by:3)
======================================
Save this inventory to file? [y/n] y
Menu

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit

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

WARNING: If you continue, all unsaved data will be lost and the Inventory re-loaded from file.
type 'yes' to continue and reload from file. otherwise reload will be canceledyes
reloading...
======= The Current Inventory: =======
ID   CD Title (by: Artist)

1   2 (by:3)
1   2 (by:3)
======================================
Menu

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit

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

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

1   2 (by:3)
1   2 (by:3)
======================================
Menu

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit

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

Fig.2 Screenshot of script successfully running in terminal window