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IT FDN 110 B Foundations of Programming Python
Assignment 05

Assignment 5

Introduction

This assignment was about modifying a CD inventory program written by someone else that displays a menu that allows the user to select various actions such as entering data about a CD and to store that information in a 2D list, printing the inventory to screen, saving the data to a text file, and exiting the program when finished. The modifications involved changing the program to use lists of dictionaries rather than lists of lists and to add functionality to allow the user to load existing data into the program and delete CDs from the inventory.

Learning

For this assignment, I read a book chapter, watched videos, and read webpages and documents on my computer. The main thing I learned about is dictionaries which are a way of organizing information in key:value pairs. I also learned about Github, set up an account and uploaded my script into Github. I also learned about separation of concerns (or programming practices) which is about dividing up code in a program to specific areas and to focus on that area in a section of the code. Examples of these areas would be data, processing and input/output. I learned a little about error handling

Running the Script in Spyder

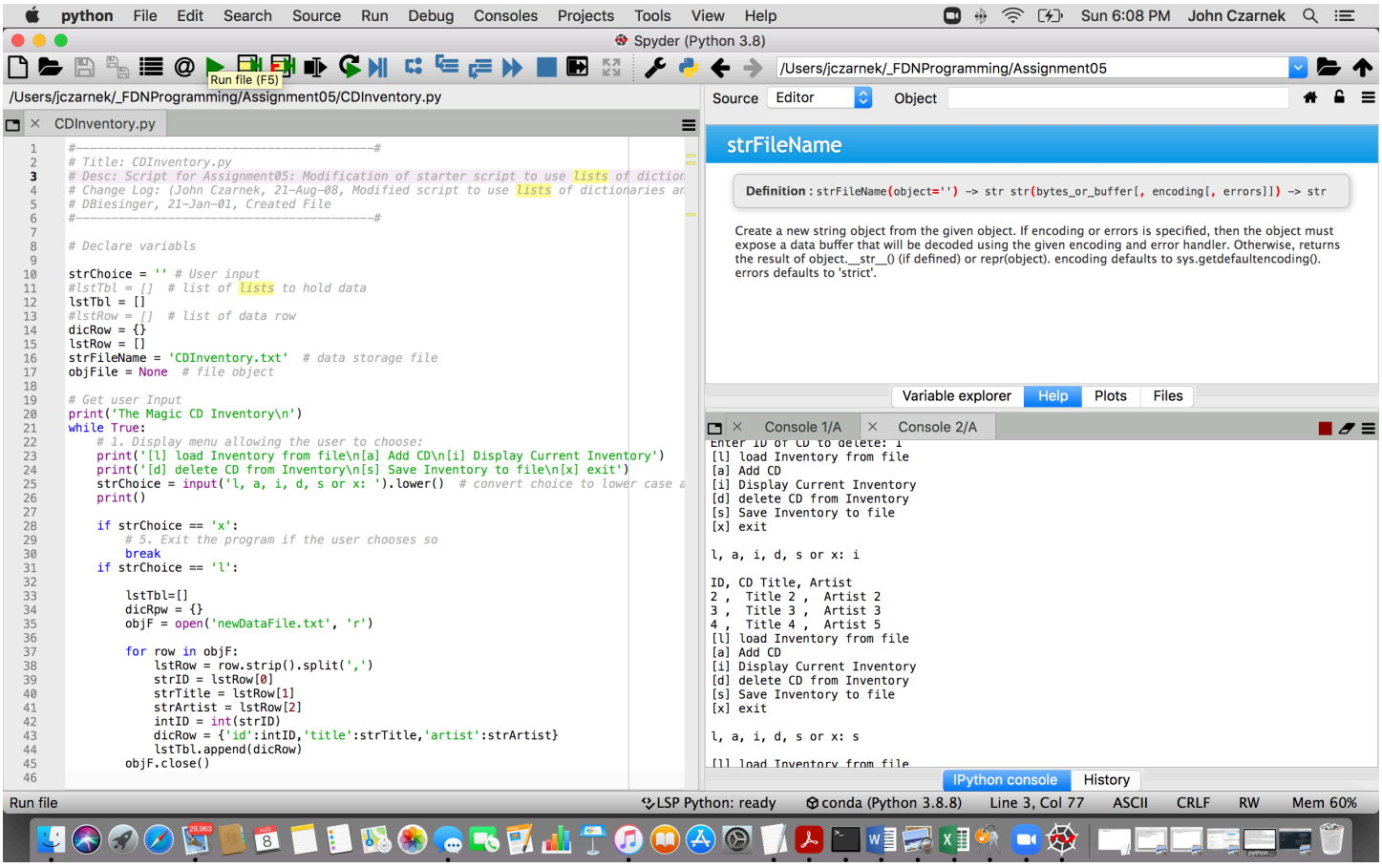

Figure 1- Script running in Spyder

Running the Script from a Terminal Window

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

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

ID, CD Title, Artist
1 ,  Title 1 ,  Artist 1
2 ,  Title 2 ,  Artist 2
3 ,  Title 3 ,  Artist 3
4 ,  Title 4 ,  Artist 5
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: d

ID, CD Title, Artist
1 ,  Title 1 ,  Artist 1
2 ,  Title 2 ,  Artist 2
3 ,  Title 3 ,  Artist 3
4 ,  Title 4 ,  Artist 5

Enter ID of CD to delete: 1
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: i

ID, CD Title, Artist
2 ,  Title 2 ,  Artist 2
3 ,  Title 3 ,  Artist 3
4 ,  Title 4 ,  Artist 5
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x:
```

Figure 2 - Script in Terminal Window

Summary

It was helpful to have created my own version of the program last week because it was easier to see that was going on in the starter script. I was frustrated by trying to integrate the more elegant code in the examples in this program, and so fell back on simpler ways of doing things. For instance, I tried to input data directly into the directories, but when I printed it out, all the directories in the list had the same values. This didn't happen when I input the data into variables first, and then assigned the values to the directories, so (after spending a lot of time figuring out what was wrong), I used the second method. This theme of going for less advanced ways of programming is seen in multiple places (deleting, loading, printing out the table, etc.) My impression is that lists are easier to work with than dictionaries.