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IT FDN 110 B AU 22

Assignment 07

Modifying the CD Inventory Script

Introduction

This week we modified CDInventory.py script with structured error handling and using binary data files. There were two key aspects which were to identify data that is appropriate for pickling, and spots that were vulnerable to error, due to user input, to utilize structured error handling.

Pickle

The Pickle function is intrinsic to Python and can be used by importing at the top of the script. Then keeping with binary data storage, the file type is changed from a txt file to a dat file. Data in pickle form is unreadable.
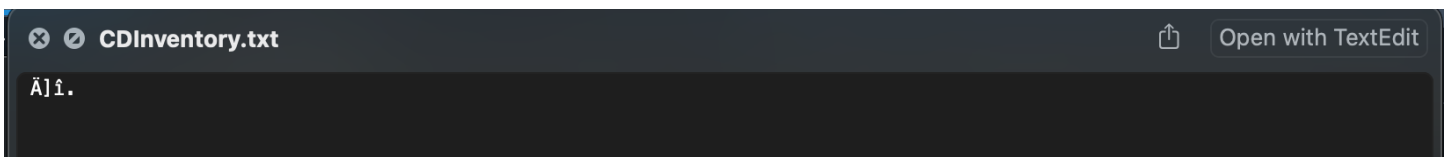

Figure 1 – 07_Pickled

Error Handling (Try Except)

Python by default will point out areas that are erroneous in the script which may prevent it from running in the first place. The other downside of a crash could be the loss of data. By using Try Except, you're able to bypass spots where a file may not exist or user input data that does not match the required value. In the case of an integer being required for an ID, a while loop suffices to temporarily break the program to allow the user a subsequent opportunity to input the appropriate value.

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

Enter ID: 5
What is the CD's title? Dracula
What is the Artist's name? Wins
======= The Current Inventory: =======
ID   CD Title (by: Artist)

1    Greatest (by:Tom Petty)
2    Midian (by:Cradle)
3    Forget (by:Feist)
4    Sands (by:Avishai)
5    Dracula (by:Wins)
====================================
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]: s

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

1    Greatest (by:Tom Petty)
2    Midian (by:Cradle)
3    Forget (by:Feist)
4    Sands (by:Avishai)
5    Dracula (by:Wins)
====================================
Save this inventory to file? [y/n] y
Data saved

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    Greatest (by:Tom Petty)
2    Midian (by:Cradle)
3    Forget (by:Feist)
4    Sands (by:Avishai)
5    Dracula (by:Wins)
====================================
```

Figure 2 − 07_Python

```
What is the Artist's name? Mansion
======= The Current Inventory: =======
ID      CD Title (by: Artist)

5       Mario (by:Mansion)
====================================
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]: s

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

5       Mario (by:Mansion)
====================================
Save this inventory to file? [y/n] y
Data saved

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 canceled
yes
reloading...
======= The Current Inventory: =======
ID      CD Title (by: Artist)

5       Mario (by:Mansion)
====================================
```

Figure 3 - 07_Terminal

Summary

Using binary file storage via Pickling seems more practical compared to using additional lines of script to load and save to/from text files. I also appreciate the use of Error Handling to gain a little more flexibility in running a program that was more inclined to pause due to stricter requirements. It was more challenging to find resources outside of course materials, but I found myself coming back to: https://docs.python.org/3/tutorial/errors.html

GitHub

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