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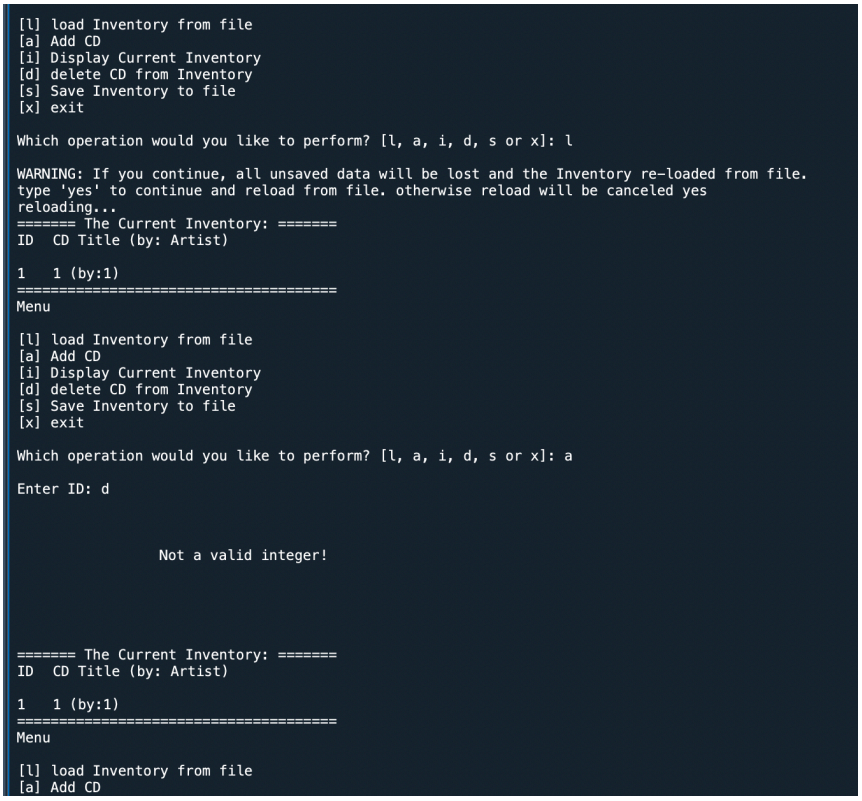
Course name - IT FDN 110 B Au 22: Foundations Of Programming: Python
Assignment 07

Introduction

This module is about introduction an extension to working with Files. It explains us about reading the contents of a text file by line, lines and writing data to a text file. We are working with Binary files and how can we use pickle module to read and write into it. Then we are working with handling the different kinds of exceptions(value, file not found, divide by zero etc,) and how to catch these exceptions for preventing the abnormal execution of the program.

Assignment 07

Spyder



Terminal

In this exercise we are working with a user menu that includes 6 options as described in the screenshot above. We are handling a couple of exceptions(file not found, value check etc.) to ensure the normal execution of program. In case we encounter any exception we are throwing it off and then continue with the normal execution.

If the user enters ‘l’, we load the existing data from file into the list of dicts. We are basically initializing our list of dicts from the inventory data in the file.

If the user enters ‘a’, the user is asked to enter values for ID, CD Title and Artist Name. Then we append these values first by storing in a dict and then to the list of dicts.

If the user enters ‘i’, we display the current data from the inventory file to the user.
If the user enters ‘d’, the user is given a prompt to enter a key value/ CD ID that he/she wants to delete. Then we iterate over the list of dicts, look for the key that matches with the user input. If there is a match, we store the position of that row and then delete it from the list. An important thing to note here is that file will still contain the corresponding row until the user enters ’s’ to save the data. This is done in order to avoid any data loss if user removed it by mistake.
If the user enters ’s’, this means we are saving the data/inventory to the file.
If the user enters ‘x’, this means he is exiting from the program and comes out of the loop.

We are extending what we have learnt in the previous assignment by embedding these file processing and data processing steps into separate functions with the help of some classes.

Summary

In this module I learnt about the classes, how to define the properties and the corresponding methods/functions to work with these attributes. I learnt about how to work with private and public variables, accessing the different types of variables from outside the class, using objects.

```
Choose from the following options in the Menu:
1 = Add CD
2 = Display Current Inventory
3 = Save Inventory to file
4 = Exit
Enter an input: 1
Enter an id: 3
Enter the CD Title: Bad
Enter the Artist Name: Michael Jackson
===========================
Choose from the following options in the Menu:
1 = Add CD
2 = Display Current Inventory
3 = Save Inventory to file
4 = Exit
Enter an input: 2
 ID  | CD Title           | Artist Name        |

 1   | The Big Wheel      | Runrig             |

 3   | Bad                | Michael Jackson    |
===========================
Choose from the following options in the Menu:
1 = Add CD
2 = Display Current Inventory
3 = Save Inventory to file
4 = Exit
Enter an input: 3
Writing contents to the file
===========================
Choose from the following options in the Menu:
1 = Add CD
2 = Display Current Inventory
3 = Save Inventory to file
4 = Exit
Enter an input: 4
```