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Foundations of Programming, Python

Assignment 06

CD Inventory Python Script-2

# Introduction

In module 06, we kept learning the concepts of function, parameters(arguments), returns values and local/global environments. Here, we need to modify the script of last week with class and function.

# Modify the CD Inventory Program

1. Modify log information of **CDInventory\_Start.py** and save it to a new script, **CDInventory.py**, in folder **Assignment06.**

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Figure 1 – Information and log of CDInventory.py

1. Declare the variables that used in this script.

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Figure 2 – Variables of CDInventory.py

1. Check the pseudocode (from **CDInventory\_Start.py**). There are 7 #TODO in total.
   1. add functions for processing here (adding a function under Data processor class)
   2. add code here (adding code for the write file function)
   3. add I/O functions as needed (adding code for the userinput function)
   4. move IO code into function (moving the user input/output into a function)
   5. move processing code into function (move the “add CD” processing code into a function)
   6. move processing code into function (move the “delete CD” processing code into a function)
   7. move processing code into function (move the “save CD” processing code into a function)
2. The 1) TODO including 5), 6), 7) TODOs. I create three functions: add\_inventory, delete\_inventory, save\_inventory. I put these functions under the DataProcessor class, move the 5) , 6) and half 7) code under these function. I also set the paremeter to table for 5), 6), 7) TODOs.

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Figure 3 – DataProcessor class function of CDInventory.py

1. To solve the 2)TODO, I create the write file function under FileProcessor class, and moved the other half 7) TODO code to here.

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Figure 4 – FileProcessor class function of CDInventory.py

1. For 3)TODO, I create userinput function under the IO class. And move the code of 4) TODO to here.

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Figure 5 – IO class function of CDInventory.py

1. Modified the main code, add the previous function into each if/elif/else under while loop menu.

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Figure 6 – main code of CDInventory.py

1. Save the script.

# Spyder Test

1. Ran the code, test invalid option

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Figure 7-1 – Test result 1 (Spyder) of CDInventory.py

1. Ran the code, option l, load the exist CD Inventory. Also test invalid option.

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Figure 7-2 – Test result 2 (Spyder) of CDInventory.py

1. Option A, add new data. I input Three data.

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Figure 7-3 – Test result 3 (Spyder) of CDInventory.py

1. Option I, display current inventory

Text

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Figure 7-4 – Test result 4 (Spyder) of CDInventory.py

1. Option D, delete temporary data. Use option I, display to check it

Text

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Figure 7-5 – Test result 5 (Spyder) of CDInventory.py

1. Option S, Saved the text file.

Text

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Figure 7-5 – Test result 6 (Spyder) of CDInventory.py

Text

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Figure 7-6 –CDInventory.txt

1. Option x, exist the program.

# Terminal Test

# GitHub

I created a new repository “Assignment\_06”. Upload my knowledge document (Assignment\_06.docx) ,python script(CDInventory.py) and the inventory txt file (CDInventory.txt).

# My GitHub page link is <https://github.com/guangsil/Assignment_06>

Figure 9 –GitHub Page

# Summary

In assignment 05, I use Spyder to modify the existed code CDInventory.py. Modify other people’s code should check the nomination and logic before adding the code. Then find the problem to be solved and solve it. I add the request variable and functionality and test the code. The new input data and exist CD inventory file is both deployed in text file. Document and script are uploaded to GitHub for further use.