

Introduction to Computer Programming (ICP)  
CCIT4020, HKU SPACE Community College, 2019-20 Semester 1

Individual Extra Function Form for Individual Member (Submit on Lesson 12)

Class no: CL-02 Group no: XX Date of submission: 2019-12-16

Group member name: Chan [REDACTED] Student no.: 201 [REDACTED]

Extra function/option name: Option '6': Settings

Please briefly describe the purpose(s) and feature(s) of the extra function for individual member of each group.

Purpose(s):

- It provides an option 6 to change the extra feature in the group part program
- It improves the outlook and better reading for the program

Function Feature(s):

- It includes seven option in settings, display item length, color of the text, color of background, color of searched text, color of searched background, auto clear screen and auto save.
- Every option is allowed the user to modify and save in a file called – “config.cfg”
- Display item length, it is option that allow to control the number of item record display in display function in one time
- Color, they are the options that allow to change the color of the program. Not only white and black
- Auto clear screen, this option allows the program to clear screen after the user choose one program or option, it can improve the readability.
- Auto save, this option allows the program save all the change occur in the program without asking the user to type “Confirm” or “Yes”

Techniques used in individual part:

- Store multiple data: List, Dictionary
- File handling: open()
- Repetition: for and while loops
- Selection: if-elif-else

Additional techniques by self-learning

- File descriptor: sys.stdout.fileno
- File existence checking: isfile() from os.path module
- String to Boolean: strtobool() from distutils.util module
- Program exit: exit() from sys module
- Exception handle: try and except
- Windows command prompt command: cls, pause, echo, color from os.system module

Errors and warnings:

No known syntax error found if the program is run by “python.exe”.

---

However, this program requires to use “python.exe” to run. If using IDLE to run it, the search function may not be able to use.

---

If the color of text and background are the same, the program will force to use black and white instead

---

Testing and other issues (Optional): (Briefly specify in point form)

The program has been tested with few sample data. The program is able to detect wrong input by the user (input character in integer field), the “inventory.txt” or “config.cfg” are empty, no data in “inventory.txt” or “config.cfg”, user are use “python.exe” to open or not, the require files is exist or not.

---

Figure 1. Sample captured screen for individual part (Settings interface).

Setting:

```
1. Display item length . . . . .0
2. Color of text . . . . .Red
3. Color of text background . . . . .Black
4. Color of searched text . . . . .White
5. Color of Searched text background . . . . .Dark Blue
6. Auto clean screen . . . . .True
7. Auto save . . . . .False
8. Restore the setting to default
9. Save and Exit
```

Input an number to change(1-9):

Figure 2. Captured screen for option 2 in settings (Color of text).

```
#####  
ForeGround:  
#####  
1. Black  
2. Dark Red  
3. Dark Green  
4. Dark Yellow  
5. Dark Blue  
6. Dark Magenta  
7. Dark Cyan  
8. Gray  
9. Red  
10. Green  
11. Yellow  
12. Blue  
13. Magenta  
14. Cyan  
15. White  
Input the color code (1-15):
```

***Remark for Submission of Individual Extra Function:***

*Each member needs to submit the program files and related files from Group Basic Function and your integrated Individual Extra Function on SOUL on Lesson 12.*

~End~