

Stuart Lai
Assignment 06
Foundations of Python Programming
November 20, 2021
<https://stubeef.github.io/IntroToProg-Python-Mod07/>

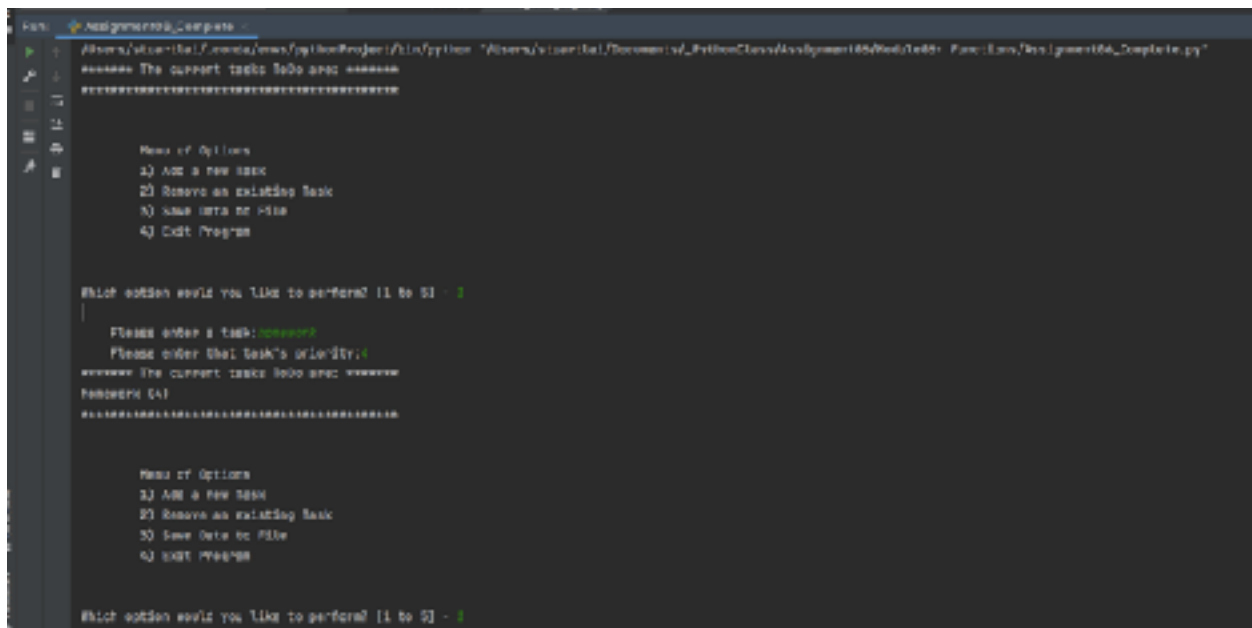
Classes and Functions

Introduction

This assignment introduced us to using classes and functions to further abstract and modularize our code. Classes served to organize related functions, while the functions themselves became single use modules that could then be mixed and matched or re-used throughout the code.

Methods

I had to start by understanding how each class was designed to be used and then write functions to modularize the script. The Processor() class was designed to handle the computation and data manipulation, while the IO() class was designed to handle the writing and exporting of data to a file. This was a nice split as it separate the user_input() code from the actual processing code, which means that we could make changes to processing logic or the logic used to capture the data without impacting each other. The last step was to organize the presentation code, which followed a general pattern of a processing step than an IO step. For future developers, this would be helpful as it creates an established pattern and would give them an idea of how the code is meant to be used and structured.



```
Python 3.8.5 Shell
assignment06_complete.py

##### The current tasks todo are: #####
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Menu of Options
1) Add a new task
2) Remove an existing task
3) Save data to file
4) Exit Program

Which option would you like to perform? [1 to 4] : 1

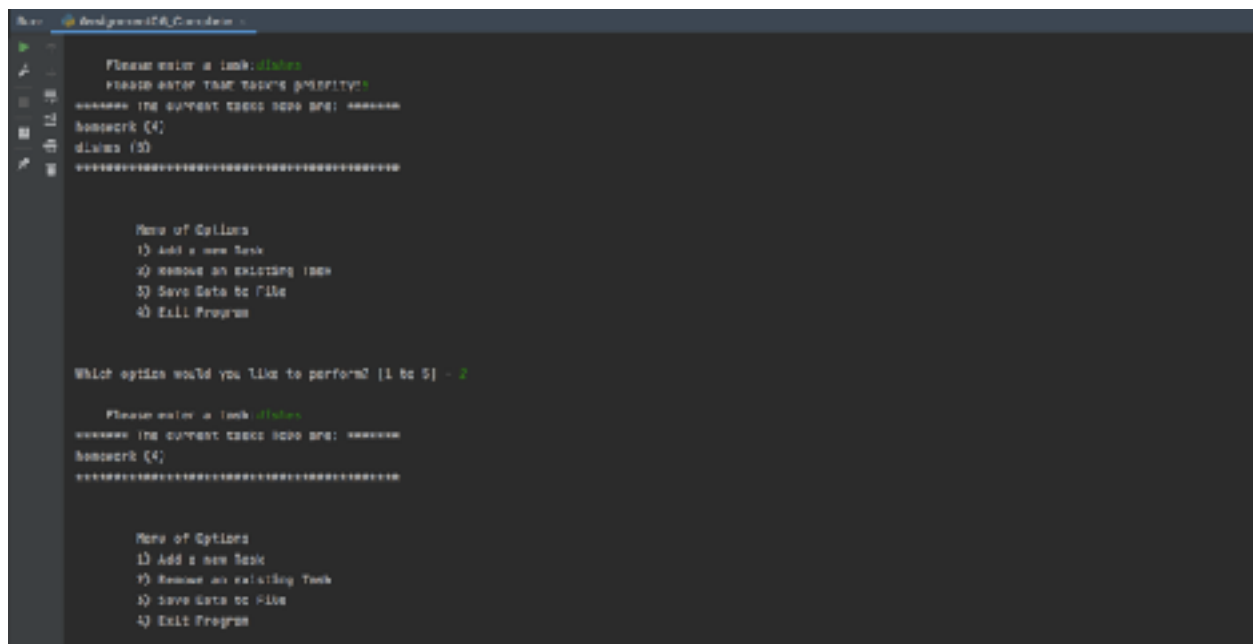
Please enter a task: remove
Please enter that task's order: 1
##### The current tasks todo are: #####
XXXXXXXXXX (1)
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Menu of Options
1) Add a new task
2) Remove an existing task
3) Save data to file
4) Exit Program

Which option would you like to perform? [1 to 4] : 1
```

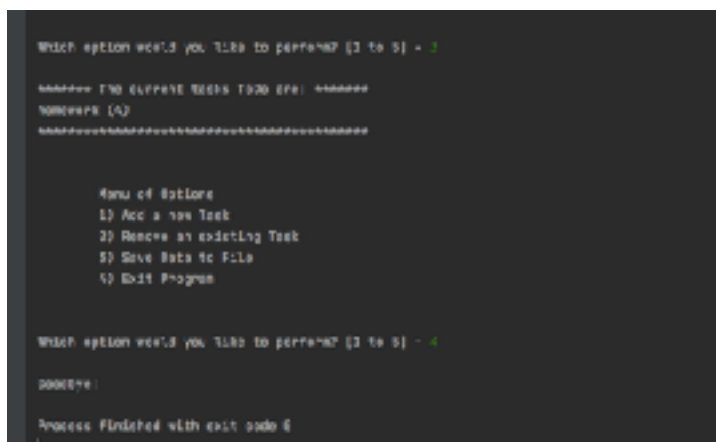
Figure 1 - First menu option

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```
designer123_Consider -  
Please enter a task: dishes  
PLEASE ENTER TASK TASK'S PRIORITY!  
***** THE CURRENT TASKS ARE: *****  
homework (4)  
dishes (3)  
*****  
  
Menu of Options  
1) Add a new Task  
2) Remove an existing Task  
3) Save Data to File  
4) Exit Program  
  
Which option would you like to perform? [1 to 5] - 2  
  
Please enter a task: dishes  
***** THE CURRENT TASKS ARE: *****  
homework (4)  
*****  
  
Menu of Options  
1) Add a new Task  
2) Remove an existing Task  
3) Save Data to File  
4) Exit Program
```

Figure 2 - Adding and deleting a new item to ToDoList.txt



```
Which option would you like to perform? [1 to 5] - 2  
  
***** THE CURRENT TASKS ARE: *****  
homework (4)  
*****  
  
Menu of Options  
1) Add a new Task  
2) Remove an existing Task  
3) Save Data to File  
4) Exit Program  
  
Which option would you like to perform? [1 to 5] - 4  
  
*****  
Process Finished with exit code 0
```

Figure 3 - Exiting Program

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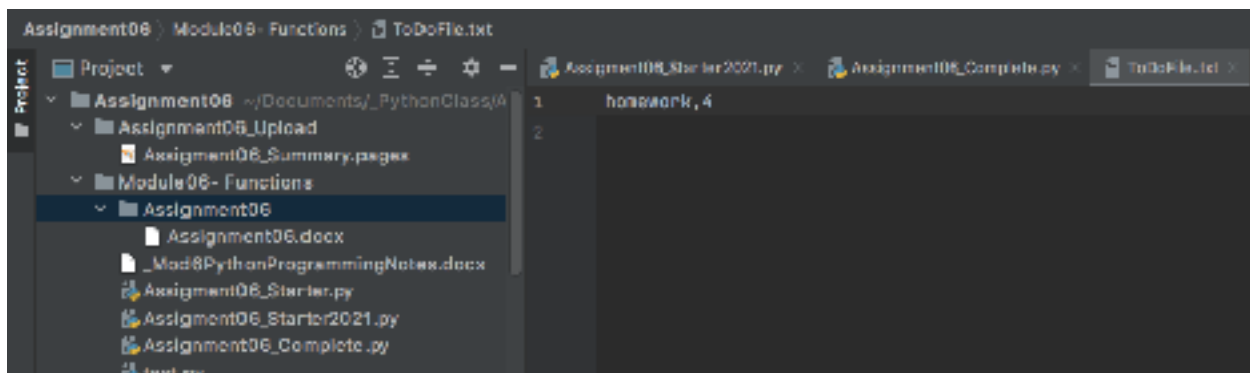


Figure 4 - Output of ToDoList.txt

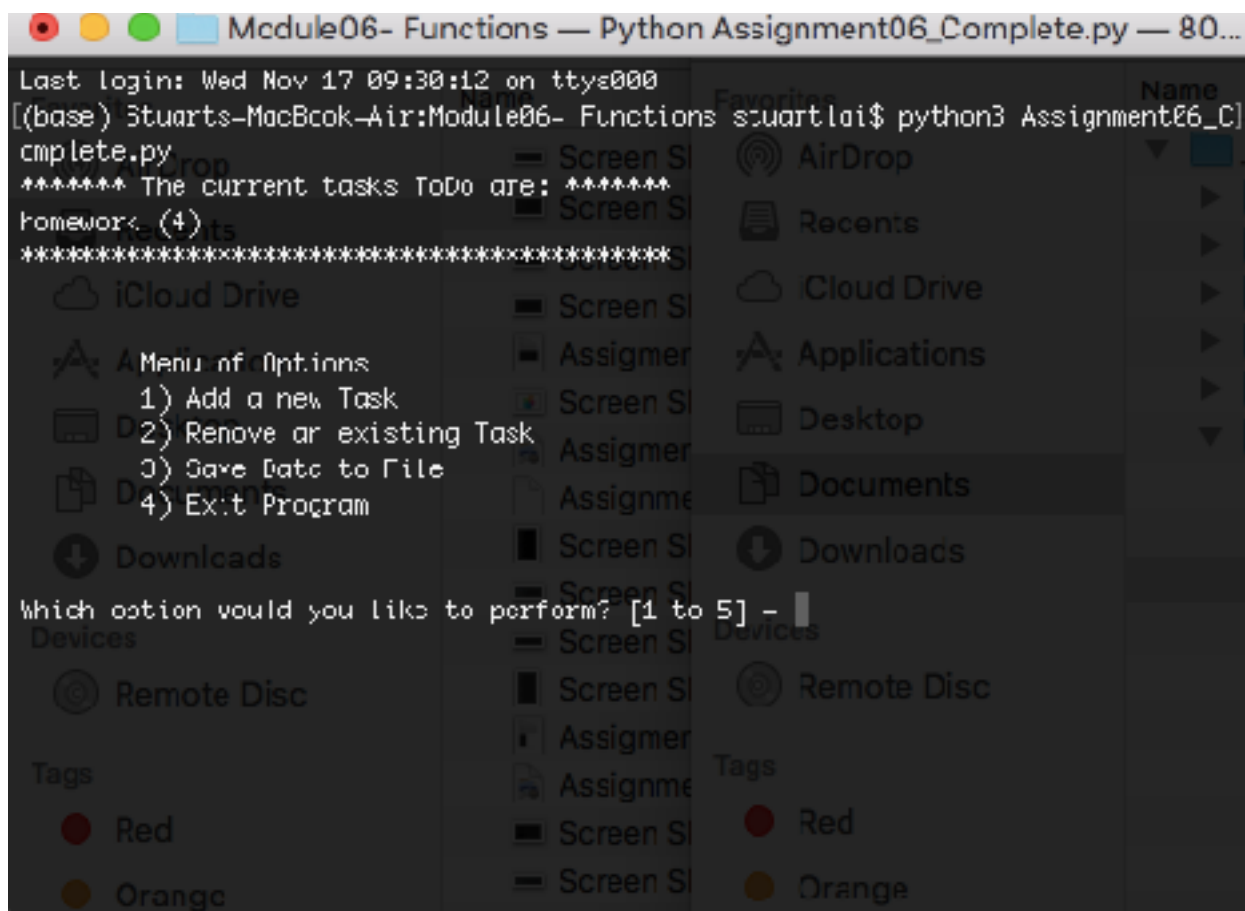


Figure 5 - Program works from terminal

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Summary

In summary, this assignment was a good introduction on how I could use classes to group my functions and then combine the different classes to accomplish my task in the presentation code. Classes serve to organize functions, which is very helpful and better than just writing a bunch of random functions and having them sit in the directory. Classes provide structure and allow me to group my functions based on a common theme.