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Python Foundations of Programming

Assignment 06

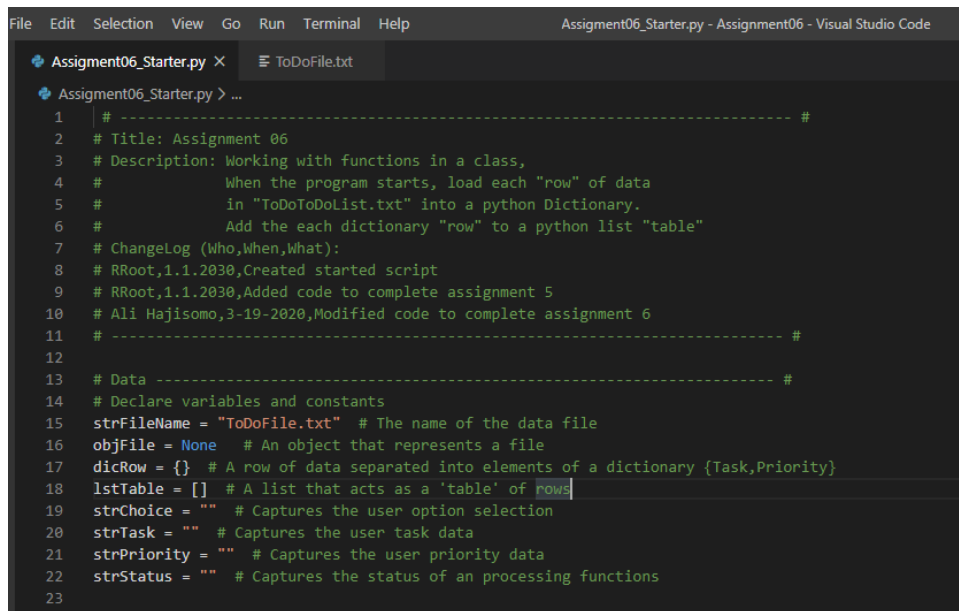
Creating my 'Assignment06_starter.py' python script

Introduction:

Assignment 06 was very challenging and educating at the same time. Being able to complete the assignment and fixing the indentation errors one after another and finally getting it right felt rewarding. Below I will attach some images of my code and also the result of my code showing data in a text file.

A preview of my code:

Below in figure one you can see a preview of my code, which show the changelog and some code to start off writing out my script. I couldn't get a full image of the whole script since it was long. However, in the image below you can see the filename, and what I named my txt file etc.



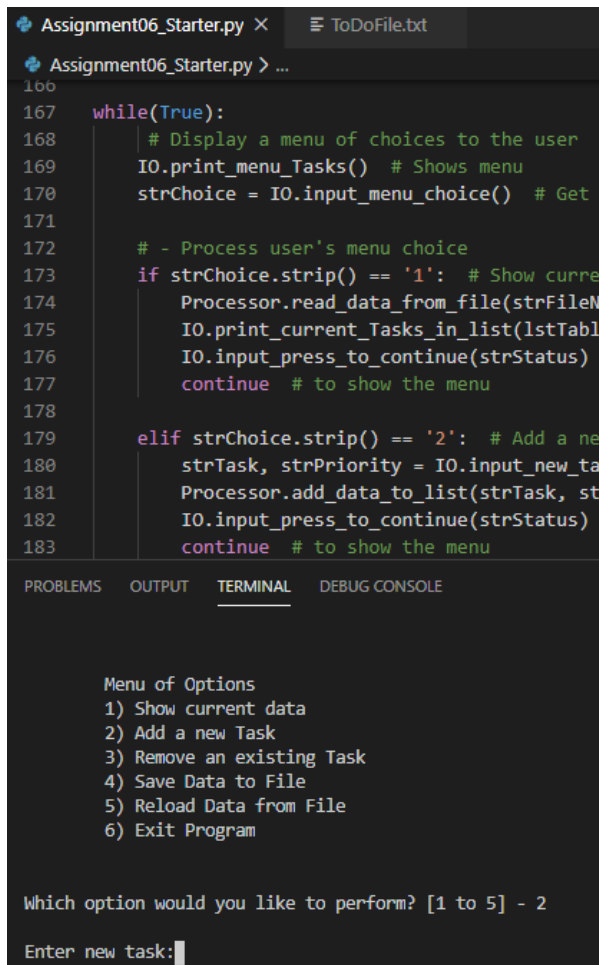
```
File Edit Selection View Go Run Terminal Help Assignment06_Starter.py - Assignment06 - Visual Studio Code
Assignment06_Starter.py x ToDoFile.txt
Assignment06_Starter.py > ...
1 | # ----- #
2 | # Title: Assignment 06
3 | # Description: Working with functions in a class,
4 | #             When the program starts, load each "row" of data
5 | #             in "ToDoToDoList.txt" into a python Dictionary.
6 | #             Add the each dictionary "row" to a python list "table"
7 | # Changelog (Who,When,What):
8 | # RRoot,1.1.2030,Created started script
9 | # RRoot,1.1.2030,Added code to complete assignment 5
10 | # Ali Hajisomo,3-19-2020,Modified code to complete assignment 6
11 | # ----- #
12 |
13 | # Data ----- #
14 | # Declare variables and constants
15 | strFileName = "ToDoFile.txt" # The name of the data file
16 | objFile = None # An object that represents a file
17 | dicRow = {} # A row of data separated into elements of a dictionary {Task,Priority}
18 | lstTable = [] # A list that acts as a 'table' of rows
19 | strChoice = "" # Captures the user option selection
20 | strTask = "" # Captures the user task data
21 | strPriority = "" # Captures the user priority data
22 | strStatus = "" # Captures the status of an processing functions
23 |
```

Figure 1: A screenshot of the start of my code.

My scripts final result in the command prompt:

In figure two below, you can see the final output of my script running in the terminal.

After running my final script, I chose option number two which is the ‘add a new task option’ as you can see, it’s now telling the user to ‘Enter a new task’.



The screenshot shows a code editor with two tabs: 'Assignment06_Starter.py' and 'ToDoFile.txt'. The Python code in the first tab is a while loop that displays a menu of options to the user. The menu options are: 1) Show current data, 2) Add a new Task, 3) Remove an existing Task, 4) Save Data to File, 5) Reload Data from File, and 6) Exit Program. The user is prompted to enter an option, and the code handles options 1 and 2. Option 1 calls 'Processor.read_data_from_file(strFileName)' and 'IO.print_current_Tasks_in_list(lstTable)'. Option 2 calls 'IO.input_new_task(strTask, strPriority)' and 'Processor.add_data_to_list(strTask, strPriority)'. The terminal output shows the menu of options and the user's input '2', followed by a prompt to enter a new task.

```
166
167 while(True):
168     # Display a menu of choices to the user
169     IO.print_menu_Tasks() # Shows menu
170     strChoice = IO.input_menu_choice() # Get user's choice
171
172     # - Process user's menu choice
173     if strChoice.strip() == '1': # Show current data
174         Processor.read_data_from_file(strFileName)
175         IO.print_current_Tasks_in_list(lstTable)
176         IO.input_press_to_continue(strStatus)
177         continue # to show the menu
178
179     elif strChoice.strip() == '2': # Add a new Task
180         strTask, strPriority = IO.input_new_task()
181         Processor.add_data_to_list(strTask, strPriority)
182         IO.input_press_to_continue(strStatus)
183         continue # to show the menu
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
Menu of Options
1) Show current data
2) Add a new Task
3) Remove an existing Task
4) Save Data to File
5) Reload Data from File
6) Exit Program

Which option would you like to perform? [1 to 5] - 2
Enter new task:
```

Figure 2: A screenshot of my final script running in the terminal

Verifying my file has data:

In figure three below, you can see that my 'ToDoFile.txt' file has data in it. I ran the file on notepad to see the outcome of it, and the final outcome has proved that my file has data in it..

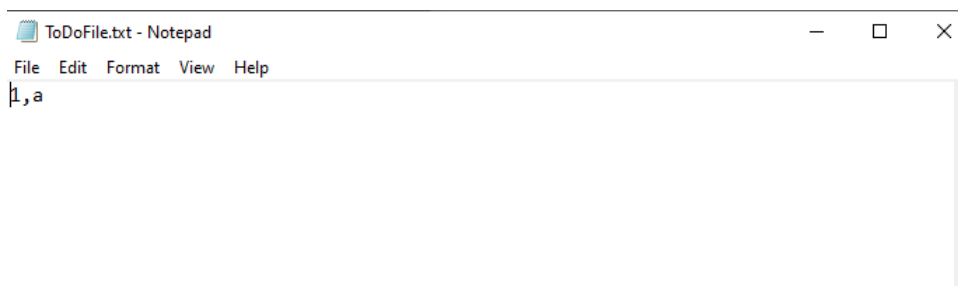


Figure 3: A screenshot of my '.txt' file that has data when it is ran.

Summary :

In conclusion, in Assignment06_starter.py we used functions, parameters, arguments and return values. We wrote, removed, added, and showed current tasks in the list of dictionaries.

we also read data from a file during the process of writing our script.