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IT FDN 100 A

Assignment05

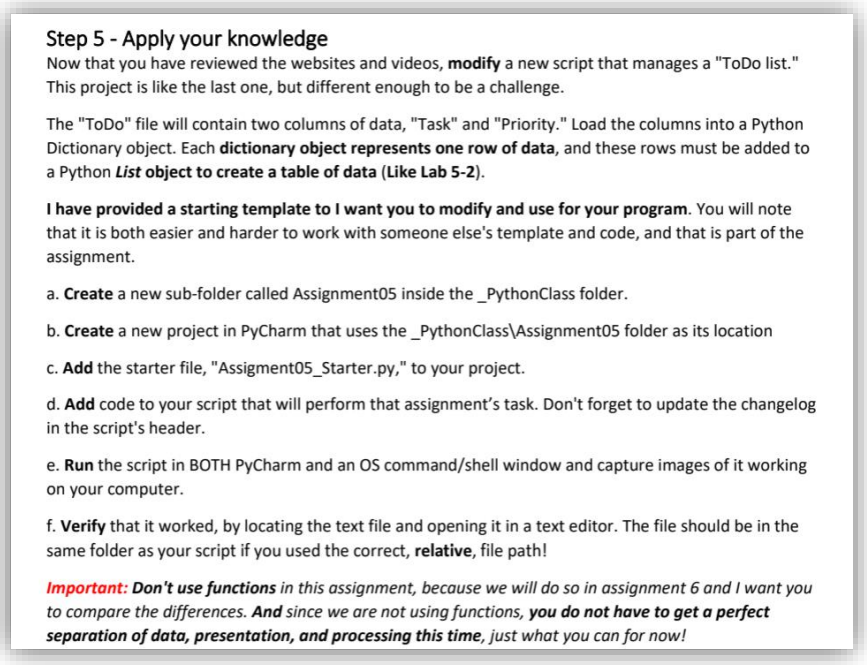
DICTIONARIES!!!!

INTRODUCTION TO MODULE 05

Module 5 introduced us to further functions of a list and added dictionaries to our knowledge base. The other items added were the use of some error handling techniques, Github repositories, programming patterns, and script templates!!!

THE ASSIGNMENT REQUIREMENTS

The follow figure outlines the task at hand from R. Roots "Assignment05" document:



Step 5 - Apply your knowledge

Now that you have reviewed the websites and videos, **modify** a new script that manages a "ToDo list." This project is like the last one, but different enough to be a challenge.

The "ToDo" file will contain two columns of data, "Task" and "Priority." Load the columns into a Python Dictionary object. Each **dictionary object represents one row of data**, and these rows must be added to a Python ***List*** **object to create a table of data** (**Like Lab 5-2**).

I have provided a starting template to I want you to modify and use for your program. You will note that it is both easier and harder to work with someone else's template and code, and that is part of the assignment.

a. **Create** a new sub-folder called Assignment05 inside the _PythonClass folder.

b. **Create** a new project in PyCharm that uses the _PythonClass\Assignment05 folder as its location

c. **Add** the starter file, "Assigment05_Starter.py," to your project.

d. **Add** code to your script that will perform that assignment's task. Don't forget to update the changelog in the script's header.

e. **Run** the script in BOTH PyCharm and an OS command/shell window and capture images of it working on your computer.

f. **Verify** that it worked, by locating the text file and opening it in a text editor. The file should be in the same folder as your script if you used the correct, **relative**, file path!

Important: ***Don't use functions*** *in this assignment, because we will do so in assignment 6 and I want you to compare the differences.* ***And*** *since we are not using functions,* ***you do not have to get a perfect separation of data, presentation, and processing this time****, just what you can for now!*

Figure 1: Screenshot from *Assignment05* by R. Root

In addition to the above, we were also tasked with uploading THIS DOCUMENT to GitHub, along with the corresponding python file.

MY APPROACH

This week I made sure to read the chapter from our text very thoroughly, as last week I felt ill prepared for the assignment. However unfortunately I wasn't able to attend the Tuesday review session this week and I think doing so would have helped, so I will make sure to attend the upcoming session for module six. After reading the text, I watched the video for Module 05 and visited the external sites as usual. I ended up re-reading parts of the chapter and re-watching some parts of the videos to solve some issues I was having.

Most of my time for this assignment was spent figuring out how to properly populate a dictionary. I kept having issues with printing the dictionary and seeing only the last row in the text file that was supposed to be loaded. At first I though this was due to the strip() and split() function not working properly, or more accurately, as intended. Only after a good amount of time did I catch some text printed in bold in the assignment that served as a clue to what was going wrong, see Figure 2 below:

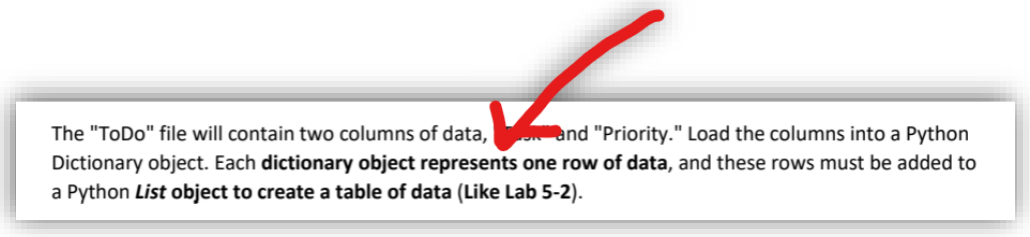


Figure 2: Screenshot from Assignment05 in PyCharm

Figure 3 shows a screenshot of the loop that fixed the issue. The trick was recalling that the dicRow variable gets rewritten every time the loop steps through a row in the data file. Specifically, I was missing line 40. I needed to append the dicRow to each row being created in the lstTable via the loop. Other than this, I had a little bit of trouble figuring out how to find a string within the list, but the Module 05 forum helped me with that:

```
37  for row in objFile:
38      lstRow = row.split(',')
39      dicRow = {'Task':lstRow[0],'Priority':lstRow[1].strip()}
40      lstTable.append(dicRow)
41  objFile.close()
42
```

Figure 3: For loop example from Assignment05 in Notepad ++.

THE SOLUTION ARRIVES!

As previously stated, eventually I got it working! Below is a screenshot of the output .txt file (Figure 4), followed by the code running via command-line and PyCharm (Figures 5 and 6):

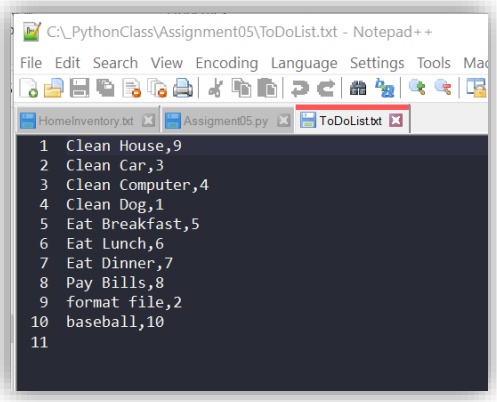


Figure 4: Assignment05.py output .txt file via Notepad++

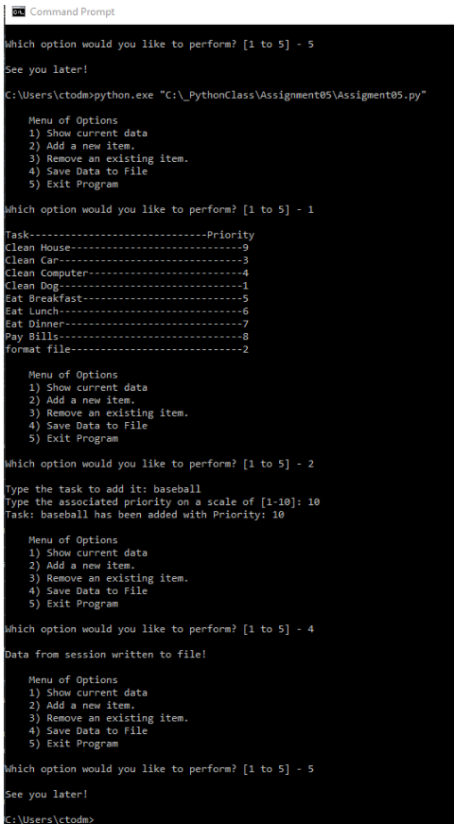


Figure 5: Command-line running Assignment05.py *(larger image available in submission)*

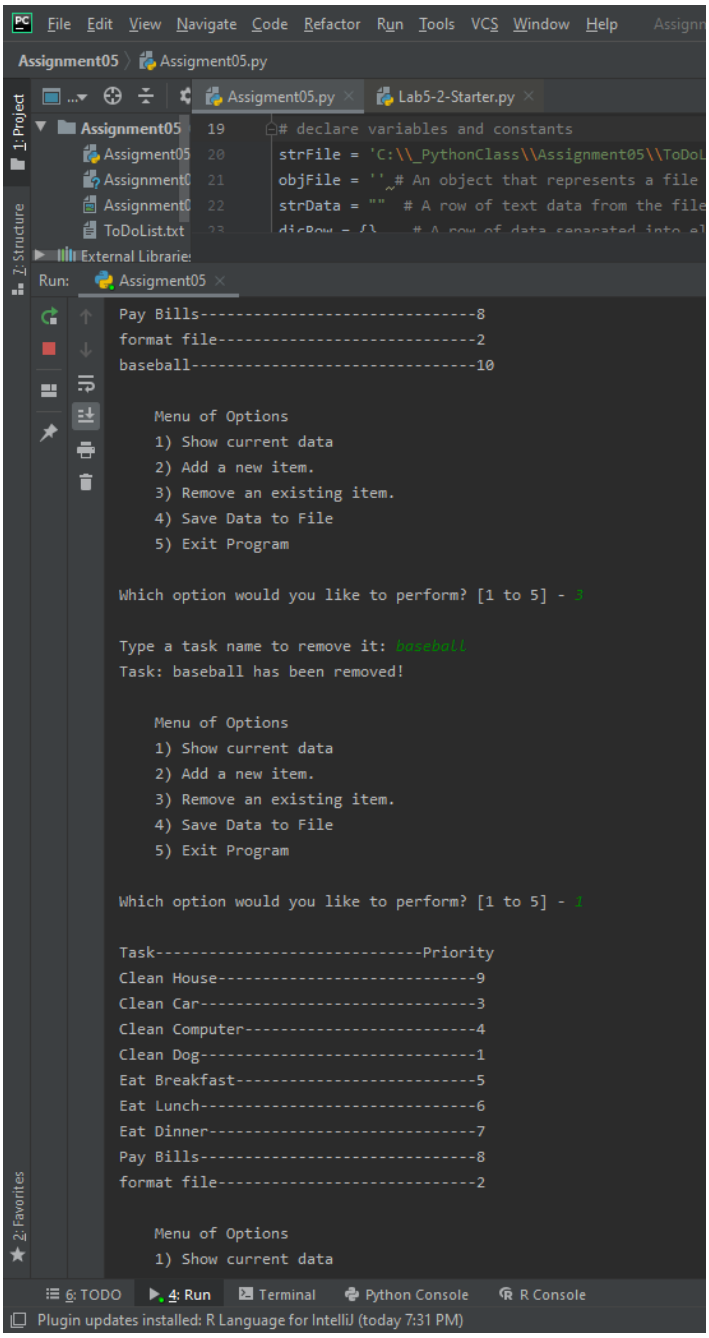


Figure 6: PyCharm running Assignment05.py

SUMMARY

Once again I was a pretty stumped on this one. Lucky for my I figured it out eventually. There are things I would have liked to incorporate in this code, such as sorting the list table by priority, detecting if a priority had already been assigned and prompting the user to choose an empty one, and detecting if a task item is duplicate or not. Some of these questions I plan to post to the forum and see if I can get some feedback. Otherwise, looking forward to Module 06!