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June 19, 2023
Foundations of Python
Assignment 05
Github URL: https://github.com/lexissmith/IntroToProg-Python

Introduction:

In assignment 5, we were introduced to storing and loading lists into a file, dictionaries, and storing our files on Github. For this lesson, we modified a starting python script in order to create a finished script that would perform a series of options selected from the user, and then save it to a text file. We were then instructed to create a Github account and post our finished script as well as this document.

Creating the program

To create the assigned program, I first had to locate the file that I was going to create and modify. This took me a bit of time, and I ended up having to put the entire file path into the script in order for it to work, as seen in the screenshot below:

```
# declare variables and constants
objFile = '/Users/alexissmith/Documents/_PythonClass/Assignment05/ToDoFile.txt'   # An object that represents a file
```

Figure 1

Before I put the file path in, I was receiving an error message when trying to test out my script in Pycharm.

For this assignment, we had to modify the variables as well as the Input/Output section of our code. This means that we had to declare the variables that we were using, and then have the code run to perform a task based on the selection of the users. The steps that we were tasked to modify were to show the current items in the table, add a new item to the list or table, remove a new item from the list or table, save the tasks to a text file, and then exit the script.

To accomplish each of the tasks in the program, I had to use a designated method. To show the current items in the table, I used “print”, as seen below:

```
# Step 3 - Show the current items in the table
if (strChoice.strip() == '1'):
    print(lstTable)
    continue
```

Figure 2

To add an item to the table I used “append”, as seen below:

```
    # Step 4 - Add a new item to the list/Table
    elif (strChoice.strip() == '2'):
        dicRow = {"whatever":"low"}
        lstTable.append(dicRow)
        continue
```

Figure 3

To remove an item from the table I used “pop”, as seen below:

```
    # Step 5 - Remove a new item from the list/Table
    elif (strChoice.strip() == '3'):
        pop = lstTable.pop()
        continue
```

Figure 4

And then to save the selected tasks to the file I opened the file and then wrote the modifications into each of the rows in the table- as seen below:

```
    # Step 6 - Save tasks to the ToDoToDoList.txt file
    elif (strChoice.strip() == '4'):
        objFile = open(strFile, "w")
        for dictRow in lstTable:
            objFile.write(list(dictRow.keys())[0] + "," + list(dictRow.values())[0])
        objFile.close()
        continue
```

Here is my program running in pycharm:

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

Which option would you like to perform? [1 to 5] - 1

[{'do python ': ' high\n'}, {'whatever': 'low'}]

    Menu of Options
    1) Show current data
    2) Add a new item.
    3) Remove an existing item.
    4) Save Data to File
    5) Exit Program

Which option would you like to perform? [1 to 5] -
```

Figure 5

Here is my program running in terminal:

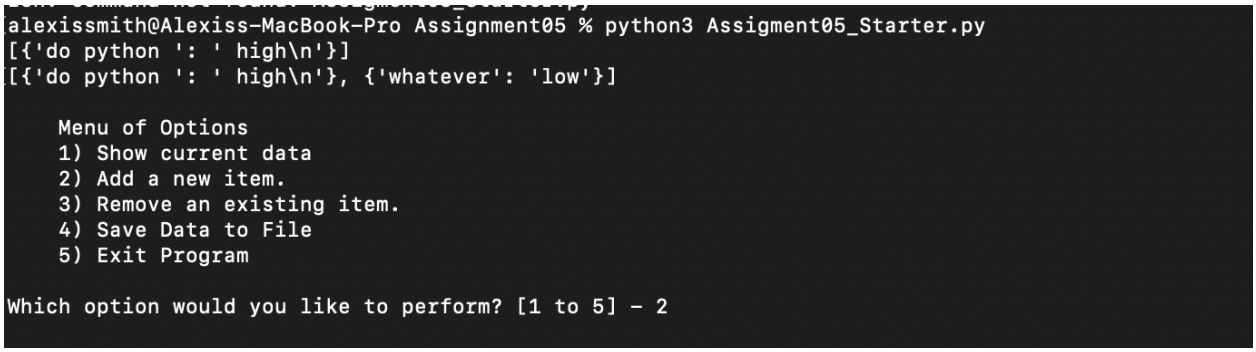

Figure 6

Conclusion:

This module instructed me on how to use a dictionary, store my files on Github, and use a list to store and retrieve data from a file. To conclude this lesson, I was able to create a program that asks the user what they would like to do, and conduct a task based on the input from the user. The results of the task selected by the user would either be displayed from the file, or modify the text file accordingly. I then posted my script and this assignment to my Github account, which can be found here: https://github.com/lexissmith/IntroToProg-Python