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May 16, 2022
Foundations of Programming
Assignment 05

Document Your Knowledge

Introduction

Week five was an interesting week of challenges. It built on previous weeks, but included dictionaries and more lists. The twist was working with provided code, which ended up being my biggest challenge.

Topic 1 – Doing What I Think I Know

I started with the items I knew I could handle. I could easily get a menu to print, I could save a document, and I could end the code. We've done those for a couple of weeks, were easy enough to test, and were successful (Figure 1).

```python
# Step 6 - Save tasks to the ToDoList.txt file
elif (strChoice.strip() == '4'):
# TODO: Add Code Here
    objFile = open(strFile, "w")
    for row in lstTable:
        objFile.write(str(row["Task"] + "," + row["Priority"]) + "\n")
        print("Data saved.")
    continue
```

```python
# Step 7 - Exit program
elif (strChoice.strip() == '5'):
    # TODO: Add Code Here
    print(" Task list complete.")
    break
    # and Exit the program
```

Figure 1. At least I knew this part.

Topic 2 – What I Believed Was True

I started putting together the meat of the code. I had two steps that were going to have to work together: add to a dictionary and remove from the dictionary. Both were a challenge. I tried a few ways, including the version shown in the Zoom/YouTube video, but ended up keeping my original plan of separating the row and the table references. It could be shorted by a single line, but I liked seeing both personally. That could change in the future (Figure 2).

```python
    # Step 4 - Add a new item to the list/Table
    elif (strChoice.strip() == '2'):
        # TODO: Add Code Here
        strTask = input("Enter a Task: ")
        strPrior = input("Enter a Priority: ")
        dicRow = {"Task":strTask, "Priority":strPrior.strip()}
        lstTable.append(dicRow)
        print("Task added.")
        continue
```

Figure 2. I liked having the row called out and then referencing it for this problem.

Topic 3 – Stumped and Lost

Step 5 just would not be my friend. I tried it a few times with very little success. The info was re-recorded and released to us Thursday and I was still banging my head on the wall. Eventually, I found a missing set of empty brackets were missing, but it still didn't seem like it was working right. After a few tests removing variables, renaming things, and moving more stuff here and there, I finally got something that at least didn't give me errors. Is it right? Well it's right enough (Figure 3).

```python
strChoice = str(input("Which option would you like to perform? [1 to 5] - "))
print("\n")  # adding a new line for looks
# Step 3 - Show the current items in the table
if (strChoice == '1'):
    # TODO: Add Code Here
    objFile = open(strFile, "r")
    for row in objFile:
        lstRow = row.split(",")
        dicRow = {"Task": lstRow[0], "Priority": lstRow[1]}
        # print(dicRow)
        print(dicRow["Task"], dicRow["Priority"], sep = " | ")
    continue
```

Figure 3. The last version that I will not touch anymore because it works.

Topic 4 – General Errors

I realized this week that for some reason when writing a lot of code I am forgetting little things like colons and brackets here and there. Additionally, there are places that requires spaces and others where it doesn't matter. I tried to be consistent, but this is the first week where quantity and previous existing code threw me a bit. I'm hoping it all looks and continues working alright (Figure 4).

Figure 4. The end of the code working in PyCharm (left) and Command Prompt (right).

Summary

This week was super challenging. I really was thrown when using the starter code. I still only think it works and am not convinced it's as good as it could be. But it is what it is and I will accept that. I look forward to seeing what others came up with and figure out if it's just my impression of weirdness and I did alright, or if I missed a big glaring issue and have much more to work on.