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IT FDN 110 A Su 23

Assignment 05

Assignment 05 – Task and Priority Program

Introduction

For Module Five of "IT FDN 110 A Su 23" Assignment 05 will be to create Python Script that will allow the user to:

1) Read Data from Text File, Add Text File Data to Dictionary and then Display all Data in Program (Task and Priority)
2) Add Data to Dictionary (List) – (Task and Priority)
3) Delete Data from Dictionary – (Task and Priority).
4) Save Dictionary Data into a text file – (Task and Priority).
5) Quit Program

Creating the Program – Help from Classmates work

This assignment had to be the most difficult I uncounted so far. I tried using the code from the course material, internet searches and other sources. I tried to rewrite the code many, many, many different times over the week. I literally spent hours each day trying to make it work. I finally decided to look at my classmates work for some ideas.

1) Creating the Assignment 05 – Task and Priority Python Script

1. Creates code for Data and Variables – Also opens Text File to read and create Dictionary

```python
# Data and Set Variables

strFile = "ToDoList.txt"
objFile = None
strData = ""
dicRow = {}
lstTable = []
strMenu = ""
strChoice = ""
strTask = ""
strPriority = ""
numx1 = int(3)

# Open Text file and load rows and tables

objFile = open(r"ToDoList.txt", "r")
for row in objFile:
    lstRow = row.split(", ")
    dicRow = {"#": lstRow[0].strip(), "Task": lstRow[1].strip(), "Priority": lstRow[2].strip()}
    lstTable.append(dicRow)
objFile.close()
```
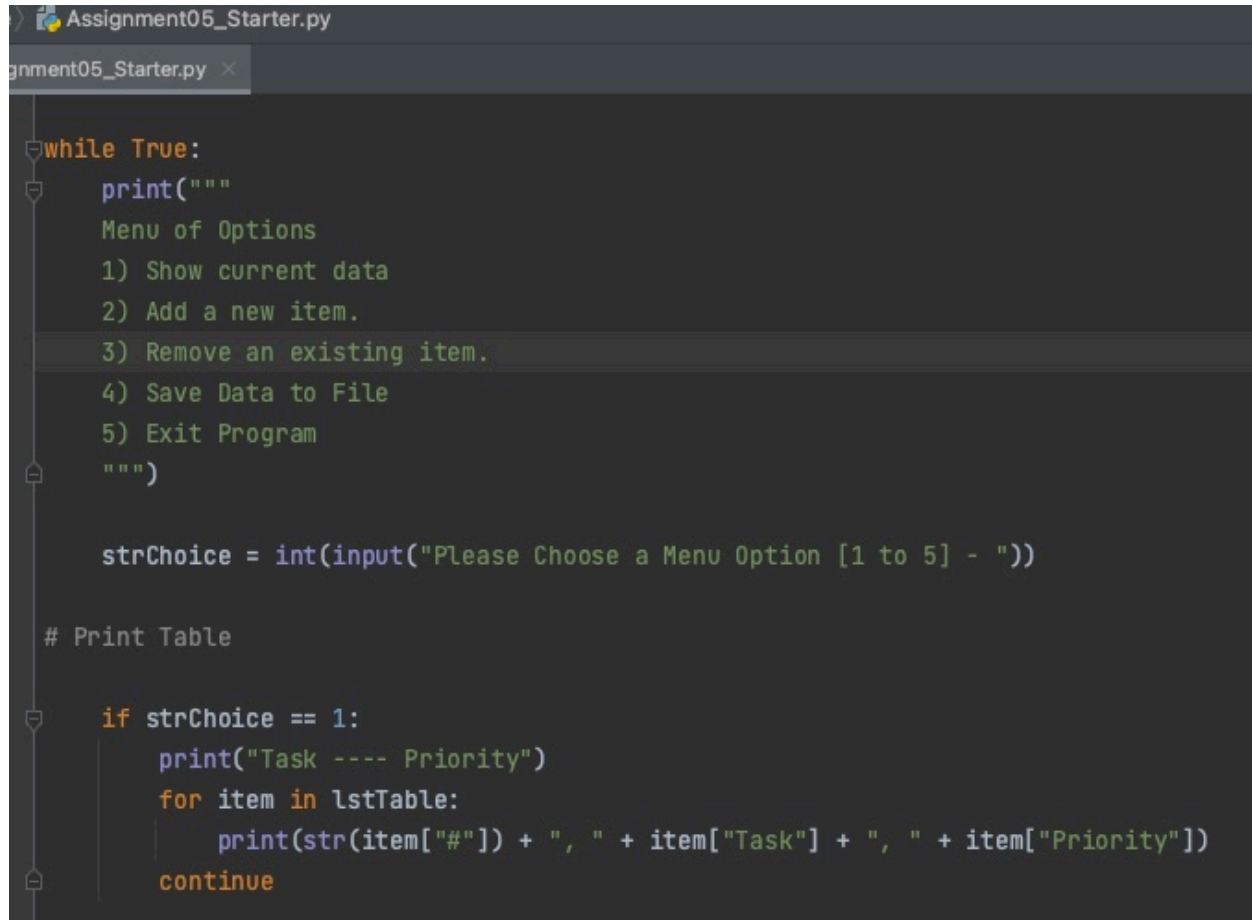
Photo 1.1 – Creates the Initial Code for the Program – Setting up Variables and Data.

The first section of the Program creates the basic structure of the program and the dictionary. The Dictionary reads the Text file, then splits the data into the number of rows, the task and the priority.

Sections of Code needed research:

Dictionary: (Randall Root, 2023)

2. Code for the Menu and Code to Display data from Text file


```python
while True:
    print("""
    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
    """)

    strChoice = int(input("Please Choose a Menu Option [1 to 5] - "))

 # Print Table

    if strChoice == 1:
        print("Task ---- Priority")
        for item in lstTable:
            print(str(item["#"]) + ", " + item["Task"] + ", " + item["Priority"])
        continue
```

Photo 1.2 – Second section of code that will Display the data collected from the Text file and the Dictionary Data inputs from option "Add a new item."

Input for Task and Priority also will display Dictionary Items from Textfile and (Randall Root, 2023).

3. Code to Add Tasks and Priorities to Dictionary

```python
# Add Tasks and Priority to Table - Ask also for additional Tasks and Priorities
    elif strChoice == 2:

        while True:
            strTask = input("Add Task: ").strip()
            strPriority = input("Add Priority: ").strip()
            numx1 += int(1)
            lstTable.append({"#": numx1, "Task": strTask, "Priority": strPriority})
            strChoice = input("Enter ('y/n') to Add More Tasks: ")
            if strChoice.lower() != 'y':
                break
        continue
```

Photo 1.3 – This section of Code allows the user to add Task and Priority to Dictionary

This code will add Inputs (Task and Priority) to the dictionary. Added features are additional numbers for new integer for new row (Randall Root, 2023).

4. Delete the Most Recent Input – Task and Priority

```python
# Delete Task Code

    elif strChoice == 3:
        while True:
            blnFoundFlag = True
            delx1 = input("Delete Task - Press Enter")
            if delx1 == "":
                for item in lstTable:
                    if item["Task"].lower() == strTask.lower():
                        lstTable.remove(item)
                        print("Task deleted")
            if not blnFoundFlag:
                print("No Task Found in List")

            strChoice = input("Continue Deleting Tasks? ('y/n')")
            if strChoice.lower() != 'y':
                break
        continue
```

Photo 1.4 – This code deletes the most recent inputted task and priority (Randall Root, 2023).

Removes most recent Inputted items from Dictionary (Geekforgeeks, 2018).

5. This Last Section of Code Writes the Dictionary Data to a Text File

```python
# Add Data to Text File
    elif strChoice == 4:
        objFile = open(r"ToDoList.txt", "w")
        for row in lstTable:
            objFile.write(str(row["#"]) + ", " + str(row["Task"]) + ", " + str(row["Priority"]) + "\n")
        objFile.close()
        print("Tasks saved to file.")
        continue

    elif strChoice == 5:
        print("Program will Quit")
        quit()
```

Photo 1.5 – This section of code writes the Dictionary to a Text File and Quits

This last section of code will write the Dictionary list to a Text file and quit the program.

5. Full Code of the Assignment 05 – (Task and Priority) Program

```python
5_AlvinLee   Assignment05_Starter.py
   Assignment05_Starter.py ×
14
15      # Data and Set Variables
16
17      strFile = "ToDoList.txt"
18      objFile = None
19      strData = ""
20      dicRow = {}
21      lstTable = []
22      strMenu = ""
23      strChoice = ""
24      strTask = ""
25      strPriority = ""
26      numx1 = int(3)
27
28      # Open Text file and load rows and tables
29
30      objFile = open(r"ToDoList.txt", "r")
31      for row in objFile:
32          lstRow = row.split(", ")
33          dicRow = {"#": lstRow[0].strip(), "Task": lstRow[1].strip(), "Priority": lstRow[2].strip()}
34          lstTable.append(dicRow)
35      objFile.close()
36
37      while True:
38          print("""
39          Menu of Options
40          1) Show current data
41          2) Add a new item.
42          3) Remove an existing item.
43          4) Save Data to File
44          5) Exit Program
45          """)
```

Photo 1.5
Part 1 –
Displays the
code for
Assignment
05 – Task and
Priority
Program.

```python
    strChoice = int(input("Please Choose a Menu Option [1 to 5] - "))

# Print Table

    if strChoice == 1:
        print("Task ---- Priority")
        for item in lstTable:
            print(str(item["#"]) + ", " + item["Task"] + ", " + item["Priority"])
        continue

# Add Tasks and Priority to Table - Ask also for additional Tasks and Priorities
    elif strChoice == 2:

        while True:
            strTask = input("Add Task: ").strip()
            strPriority = input("Add Priority: ").strip()
            numx1 += int(1)
            lstTable.append({"#": numx1, "Task": strTask, "Priority": strPriority})
            strChoice = input("Enter ('y/n') to Add More Tasks: ")
            if strChoice.lower() != 'y':
                break
        continue

# Delete Task Code

    elif strChoice == 3:
        while True:
            blnFoundFlag = True
            delx1 = input("Delete Task - Press Enter")
            if delx1 == "":
                for item in lstTable:
                    if item["Task"].lower() == strTask.lower():
                        lstTable.remove(item)
                        print("Task deleted")
            if not blnFoundFlag:
                print("No Task Found in List")

            strChoice = input("Continue Deleting Tasks? ('y/n')")
            if strChoice.lower() != 'y':
                break
        continue
```

Photo 1.6 Part 2 – Displays the code for Assignment 05 – Task and Priority Program.

```
# Add Data to Text File
    elif strChoice == 4:
        objFile = open(r"ToDoList.txt", "w")
        for row in lstTable:
            objFile.write(str(row["#"]) + ", " + str(row["Task"]) + ", " + str(row["Priority"]) + "\n")
        objFile.close()
        print("Tasks saved to file.")
        continue

    elif strChoice == 5:
        print("Program will Quit")
        quit()
```
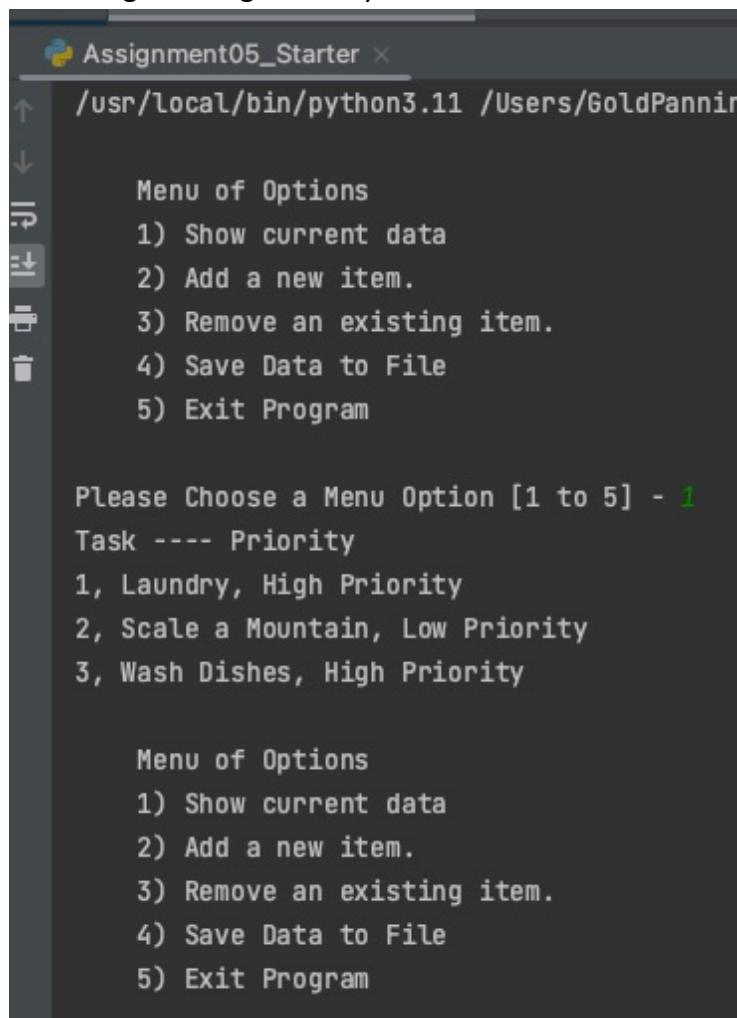
Photo 1.7 Part 3 – Displays the code for Assignment 05 – Task and Priority Program.

2) Testing the Program

1. Testing the Program in PyCharm – Part 1

```
Assignment05_Starter
/usr/local/bin/python3.11 /Users/GoldPannin

    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

Please Choose a Menu Option [1 to 5] - 1
Task ---- Priority
1, Laundry, High Priority
2, Scale a Mountain, Low Priority
3, Wash Dishes, High Priority

    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
```

Photo 2.1 – PyCharm Program Running Assignment 05 – Task and Priority Program

This shows the operation of Assignment_05 – Task and Priority Program in PyCharm. Menu of options, Task and Priority located in Text file.

```
Please Choose a Menu Option [1 to 5] - 2
Add Task: Watch Movie
Add Priority: Low
Enter ('y/n') to Add More Tasks: y
Add Task: Start Homework
Add Priority: High
Enter ('y/n') to Add More Tasks: n

    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

Please Choose a Menu Option [1 to 5] - 1
Task ---- Priority
1, Laundry, High Priority
2, Scale a Mountain, Low Priority
3, Wash Dishes, High Priority
4, Watch Movie, Low
5, Start Homework, High

    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
```

Photo 2.2 – Shows the Input Menu and Displays the Data Inputted into the Dictionary

2. Testing the Program in PyCharm – Part 2

This screenshot shows the operation of the Program when adding Task and Priority to the Dictionary.

Added Tasks and Priority are then displayed in the program.

3. Testing the Program in PyCharm – Part 3

```
Please Choose a Menu Option [1 to 5] - 3
Delete Task - Press Enter
Task deleted
Continue Deleting Tasks? ('y/n')n

    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

Please Choose a Menu Option [1 to 5] - 4
Tasks saved to file.

    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

Please Choose a Menu Option [1 to 5] - 5
Program will Quit

Process finished with exit code 0
```

This section of code allows the Program to delete the most recent Task and Priority added to the Dictionary List. Also shows the operation of the Tasks and Priority saved to a Text file.

Photo 2.3 – Shows the deleted tasks and the Saved Tasks to Text file message

4. Testing the Assignment 05 – Task and Priority Program in Terminal

Photo 2.4 – Terminal Program
Assignment 05 – Task and Priority

```
Last login: Wed Aug  9 22:23:27 on ttys001
cd '/Users/GoldPanning/Documents/_PythonClass/Assignment05_Alvi
nLee/' && '/usr/local/bin/python3'  '/Users/GoldPanning/Documen
ts/_PythonClass/Assignment05_AlvinLee/Assignment05_Starter.py'
 && echo Exit status: $? && exit 1

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh
`.
For more details, please visit https://support.apple.com/kb/HT2
08050.
Alvins-Mac-mini:~ GoldPanning$ cd '/Users/GoldPanning/Documents
/_PythonClass/Assignment05_AlvinLee/' && '/usr/local/bin/python
3'  '/Users/GoldPanning/Documents/_PythonClass/Assignment05_Alv
inLee/Assignment05_Starter.py'  && echo Exit status: $? && exit
 1

    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

Please Choose a Menu Option [1 to 5] - 1
Task ---- Priority
1, Laundry, High Priority
2, Scale a Mountain, Low Priority
3, Wash Dishes, High Priority
4, Watch Movie, 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

Please Choose a Menu Option [1 to 5] - 2
Add Task: Slay Bobcat
Add Priority: High Priority
Enter ('y/n') to Add More Tasks: y
Add Task: Hunt Deer
Add Priority: Low Priority
Enter ('y/n') to Add More Tasks: n

    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

Please Choose a Menu Option [1 to 5] - 3
Delete Task - Press Enter
Task deleted
Continue Deleting Tasks? ('y/n')4

    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

Please Choose a Menu Option [1 to 5] - 5
Program will Quit
Exit status: 0
logout

Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.
```
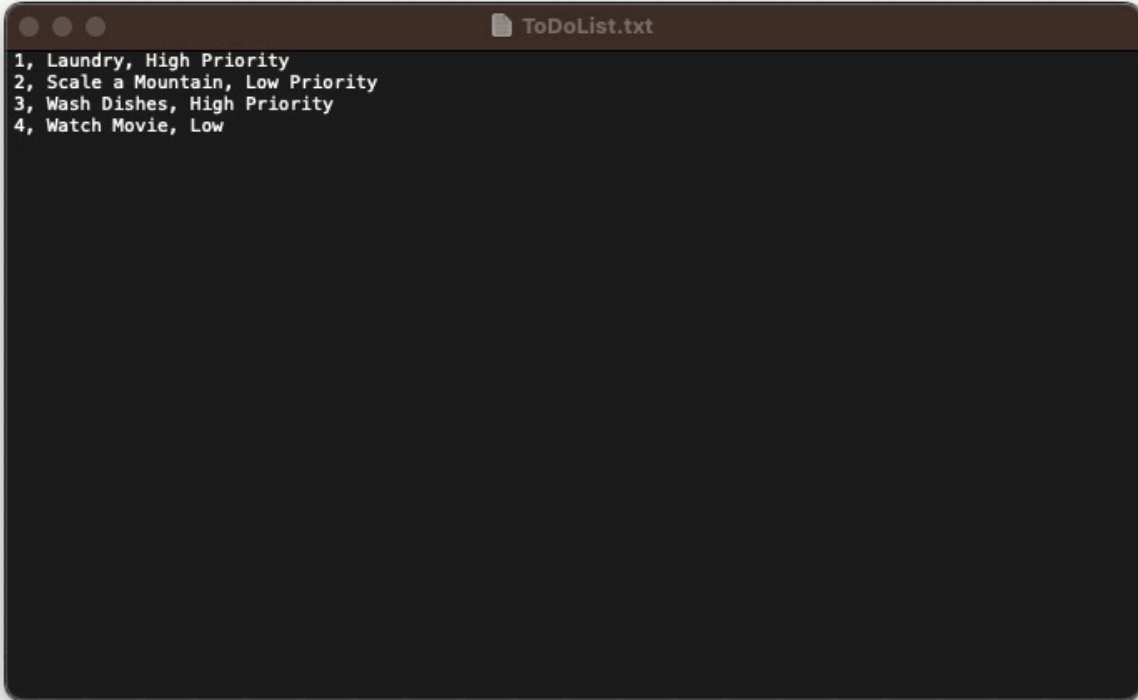
3. Data Saved to Text file

ToDoList.txt
```
1, Laundry, High Priority
2, Scale a Mountain, Low Priority
3, Wash Dishes, High Priority
4, Watch Movie, Low
```

Photo 3.1 – Running the Assignment 05 Program – Tasks and Priority in Terminal

Summary

I had a very frustrating time with this program and assignment. I have completed it, but I could not have completed it without the help of my classmates.

Bibliography:

Randall Root. (2023). _Mod5PythonProgrammingNotes. UW Course Material.

Python list remove(). (2018, January 13). *GeeksforGeeks*.
https://www.geeksforgeeks.org/python-list-remove/