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Course: IT FDN 110 A

Assignment 06

GitHub URL webpage : <https://inpnunrohn.github.io/introtoprogrammingpython/>
<https://github.com/inpnunrohn/Assignment06>

Creating ToDo List

- **Introduction**

This week, I acquired knowledge on functions and their practical applications in code development. I familiarized myself with the process of creating functions, understanding their input and output mechanisms. Additionally, I grasped the significance of functions in enhancing code organization. Furthermore, I embarked on exploring classes, distinguishing their characteristics from functions. To streamline my coding process, I delved into utilizing PyCharm's built-in debugger tool for efficient debugging. Lastly, I dedicated some time to learning about GitHub webpages and acquiring the skills to create them.

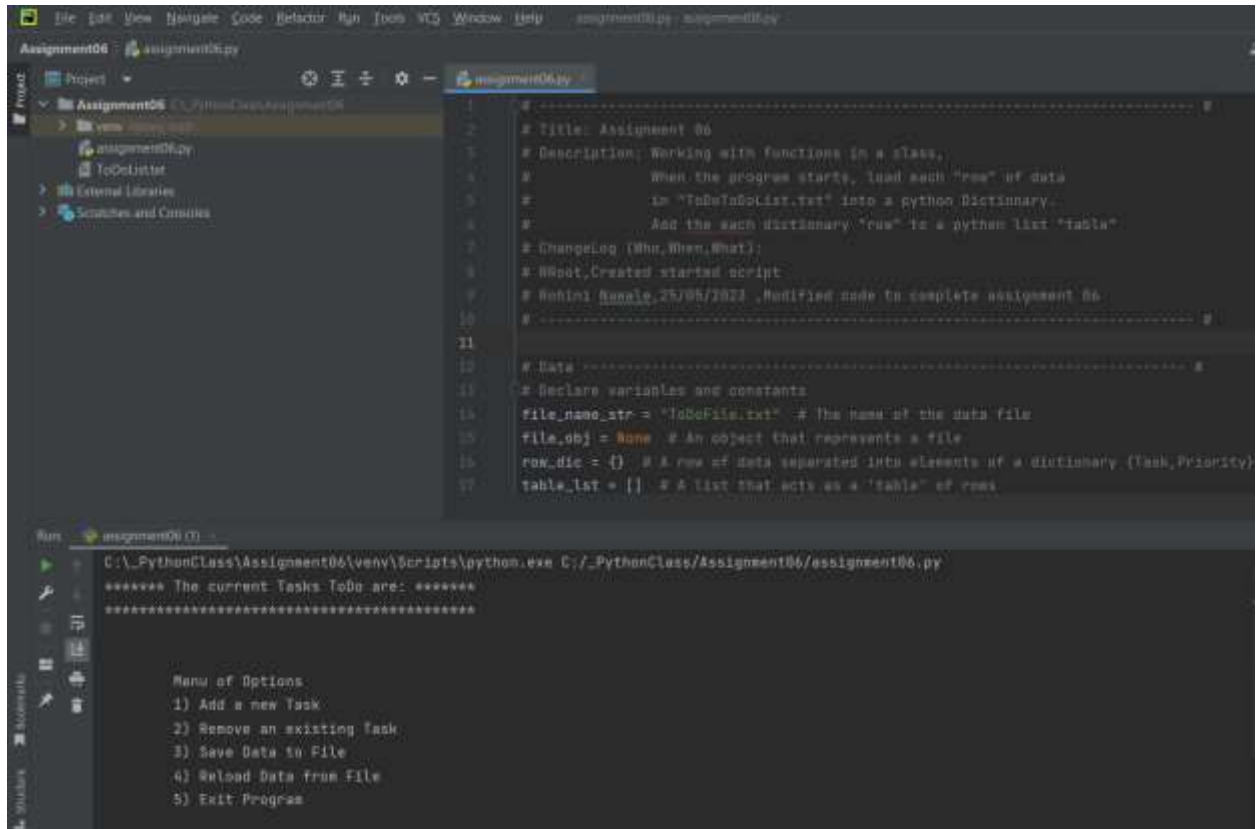
Functions, Parameters, and Arguments

A function can be described as a collection of one or more statements grouped together. Prior to usage, functions must be defined using the 'def' keyword. Once defined, functions can be invoked at a later point in the code. Generally, any code segment that is utilized repeatedly should be encapsulated within a function. Functions can possess parameters, enabling the passage of values for processing. Once a value is passed to a parameter, it is formally referred to as an argument. Although these terms are often used interchangeably, technically, arguments are parameters assigned with specific values.

A return value (or values) refers to the outcome obtained from a function. The 'return' keyword transforms the function into an expression. In other words, it allows the function to produce a result that can be captured by assigning it to a variable or used in another expression. Assigning the result to a variable enables its reuse, while using it solely as an expression does not. It's worth noting that a function can return multiple values in the form of a tuple, which can also be assigned to variables.

Local variables are those confined within a function. Code within a function can typically only access other code within the same function. Variables that exist outside of a function are commonly

referred to as global variables. Unless explicitly declared within a function using the 'global' keyword, global variables will not be accessed or modified by the function.



```
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 "ToDoList.txt" into a python Dictionary.
6 #             Add the each dictionary "row" to a python list "table"
7 #
8 # ChangeLog (Who,When,What):
9 # 2020/05/25, Created started script
10 # 2020/05/25, Modified code to complete assignment 06
11 # ----- #
12
13 # Data ----- #
14 # Declare variables and constants
15 file_name_str = "ToDoFile.txt" # The name of the data file
16 file_obj = None # An object that represents a file
17 row_dic = {} # A row of data separated into elements of a dictionary (Task,Priority)
18 table_lst = [] # A list that acts as a 'table' of rows
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```
Run: assignment06 (C) -
C:\_PythonClass\Assignment06\venv\Scripts\python.exe C:/_PythonClass/Assignment06/assignment06.py
***** The current Tasks ToDo are: *****
*****
*****

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

Fig:01 Processing the data and pycharm output

- **Output in cmd**

```

C:\> Command Prompt
Microsoft Windows [Version 10.0.19044.2965]
(c) Microsoft Corporation. All rights reserved.

C:\Users\iq860f>cd C:\_PythonClass\Assignment06

C:\_PythonClass\Assignment06>assignment06.py

C:\_PythonClass\Assignment06>
C:\_PythonClass\Assignment06>python assignment06.py
***** The current Tasks ToDo are: *****
WRITING (HIGH)
*****

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

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

Enter a task: WRITING
Enter a priority: HIGH
Success
Press the [Enter] key to continue.
***** The current Tasks ToDo are: *****
WRITING (HIGH)
WRITING (HIGH)
*****

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

C:\% Select Command Prompt

Which option would you like to perform? [1 to 5] - 2

Enter a task to be removed: READING

Success

Press the [Enter] key to continue.

***** The current Tasks ToDo are: *****

WRITING (HIGH)

WRITING (HIGH)

Menu of Options

- 1) Add a new Task
- 2) Remove an existing Task
- 3) Save Data to File
- 4) Reload Data from File
- 5) Exit Program

Which option would you like to perform? [1 to 5] - 3

Save this data to file? (y/n) - Y

Success

Press the [Enter] key to continue.

***** The current Tasks ToDo are: *****

WRITING (HIGH)

WRITING (HIGH)

Menu of Options

- 1) Add a new Task
- 2) Remove an existing Task
- 3) Save Data to File
- 4) Reload Data from File
- 5) Exit Program

```

Which option would you like to perform? [1 to 5] - 4

Warning: Unsaved Data Will Be Lost!
Are you sure you want to reload data from file? (y/n) - Y
Success
Press the [Enter] key to continue.
***** The current Tasks ToDo are: *****
WRITING (HIGH)
WRITING (HIGH)
WRITING (HIGH)
WRITING (HIGH)
*****

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

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

Goodbye!

```

Fig:07 Output Display message

- **Summary:**

This script prompts the user to input the item name, budget for shopping and price of the item. It then applies a conditional statement to determine whether the item is expensive, good price or average. After processing the data, it saves the item name and budget to a text file named "HomeInventory.txt" and displays the result to the user. Finally, it prompts the user to press enter key before exiting the program.

Note** C:\Users\iq860f\ -iq860 is my system ID. Thanks.