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IT FDN 110 A - Foundations of Programming: Python

Assignment 06 – Functions

**GitHub**

Page: <https://garrisont.github.io/IntroToProg-Python/>

Assignment 06: <https://github.com/garrisont/IntroToProg-Python/tree/main/Assignment06>

Module 6 – Functions

# Introduction

The base task is roughly the same as in assignment 5 (read/modify/write a to-do text file), however this time we needed to finish a partially completed script. The partially created script makes use of classes and functions however some of the functions are merely placeholders.

Text

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Figure - Starter script with placeholder functions

## Review of existing code (#TODO)

I started the task by reviewing the list of #TODO comments in PyCharm.

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Figure - PyCharm #TODO summary

There were five functions that appeared to need completing; add\_data\_to\_list, remove\_data\_from\_list, write\_data\_to\_file, input\_new\_task\_and\_priority and input\_task\_to\_remove.

## Individual test files

The placeholder functions happen to be exactly the tasks our assignment 05 script completed, so I started by copying snippets of the assignment 05 script into stand alone testing files.

Graphical user interface, text

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Figure - Test file strategy

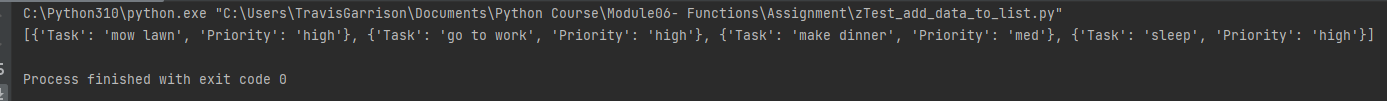


Figure - Test file results

## Inserting / testing

Once all the basic functions had been tested as stand alone files I inserted the code into their respective functions and appended the #TODO: with a # >> Done << marker.

Graphical user interface, text

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Figure - Code inserted into actual function

## Global variables

The “starter” script came with several suggested global variables, however I opted not use them in my functions as that seemed like it might lead to confusion with “shadowing” of global variables.

I checked for existing usage and deleted the variables not already used in other (existing) functions.

Graphical user interface, text

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Figure - Remaining global variables.

# Assigned script

For the most part finishing the assigned script appeared to be a matter of moving sections from assignment 05 into assignment 06. The one complication for me was that my strategy in 05 was to make use of .json files, this wasn’t going to work well with the starting script so I rewrote the write\_data\_to\_file sections from 05.

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Figure - add\_data\_to\_list

Text

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Figure - remove\_data\_from\_list

Text

Description automatically generated

Figure - write\_data\_to\_file

Text

Description automatically generated

Figure - input\_new\_task\_and\_priority

Text

Description automatically generated

Figure - input\_task\_to\_remove

## Results

Text

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Figure - Running in PyCharm

Text

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Figure - Running from the command line

Graphical user interface, text, application

Description automatically generated

Figure - .txt file results

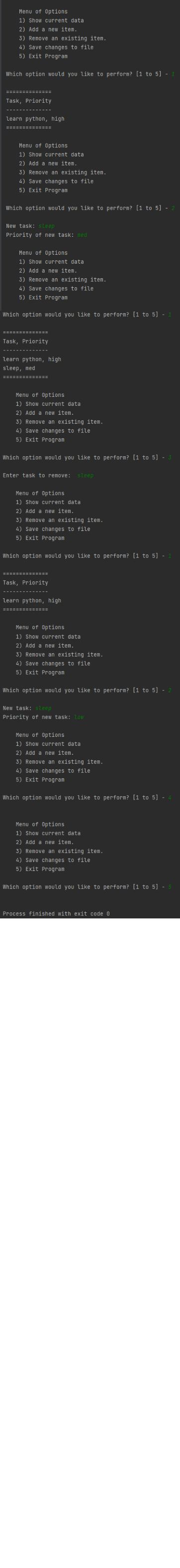


Figure - PyCharm output (long...)

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Figure - Output (ToDoList.txt) after PyCharm run

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Figure - Assignment running from command line

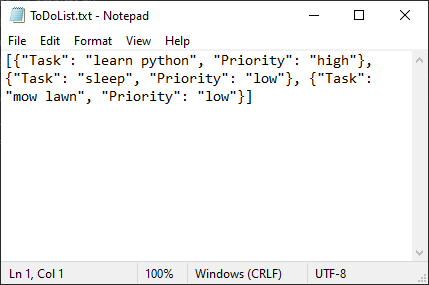


Figure - Results of command line run