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**Course:** Foundations of Programming: Python

**GitHub URL:** [https://github.com/bdvesel21/IntrotoPython\\_Mod06](https://github.com/bdvesel21/IntrotoPython_Mod06)

## Assignment 06 – Functions

### Introduction

This week in Foundations of Programming: Python we focused on creating classes and functions by using the professor's starter code and adding modified code from module 5 to change the assignment 05 code to be functions.

### Functions

Functions are one way in Python to create an organized block of code. It can make the code more easily readable, reusable, and can help save time in processing. The professor had displayed the use of some basic functions with tuples and lists previously, as had our textbook, but this week was the first time we focused on using them in the python code.

### Homework

This week's homework built upon module 05's homework that involved lists and dictionaries and having a user input into a menu to manipulate the data. We again used the professor's starter code, but instead of writing it all in the if statement, we created classes and functions to contain the code. By doing this, if the user were to use this menu for a long period of time, it would save memory space by only loading a specific function instead of running through the long if statement every time the menu ran. Professor Root wrote much of the code this week in his starter code, so I was often overthinking and overcomplicating the assignment. I spent more time flipping between the code for Modules 05 and 06 to make sure I didn't forget anything than I did writing the needed lines. The ending lines of code I did write seemed so simple compared to what we did last week, or maybe how much effort it took. Despite all the code shown in Figure 1, I only wrote the actual while function code, not the explanation or notes.

### Figure 1: Partial Code

```

42     @staticmethod
43     def add_data_to_list(task, priority, list_of_rows):
44         """ Adds data to a list of dictionary rows
45
46         :param task: (string) with name of task:
47         :param priority: (string) with name of priority:
48         :param list_of_rows: (list) you want to add more data to:
49         :return: (list) of dictionary rows
50         """
51         row = {"Task": str(task).strip(), "Priority": str(priority).strip()}
52         list_of_rows.append(row)
53         return list_of_rows
54
55     @staticmethod
56     def remove_data_from_list(task, list_of_rows):
57         """ Removes data from a list of dictionary rows
58
59         :param task: (string) with name of task:
60         :param list_of_rows: (list) you want filled with file data:
61         :return: (list) of dictionary rows
62         """
63         for row in list_of_rows:
64             if row["Task"].lower() == task.lower():
65                 list_of_rows.remove(row)
66         return list_of_rows
67
68     @staticmethod
69     def write_data_to_file(file_name, list_of_rows):
70         """ Writes data from a list of dictionary rows to a File
71
72         :param file_name: (string) with name of file:
73         :param list_of_rows: (list) you want filled with file data:
74         :return: (list) of dictionary rows
75         """
76         file = open(file_name, "w")
77         for row in list_of_rows:
78             file.write(row["Task"] + "," + row["Priority"] + "\n")
79         file.close()
80         return list_of_rows

```

The task I was sort of dreading because I had no idea how to put a user's input inside a function, he wrote out for me. I also was confused conceptually by how you ask a user for input in a function and then use that return in another function, but he wrote that code out as well. For the remove, instead of using the complicated code I did last week, I opted to not account for duplicates this time, and after reviewing the professor's answer code when I was finished, he didn't seem to account for them either.

## Conclusion

I felt like the homework this week wasn't maybe involved enough. I felt like I learned more from Lab 6-3 than I did the homework. Likely, we will apply this knowledge again and in more depth in Modules 07 and 08, so I am looking forward to more practice and trying to figure things out a little more on my own.