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Course: Foundations of Programming: Python

Assignment06 – Working with Functions

Introduction and TODO #1

To get started I opened the Assignment06_Starter.py file using the Visual Studio Code editor. Then, I edited the script header to update the change log. For the first TODO I appended the new row items that had been created in the code provided for line 52 to the list of rows. I also added a return so that the user could view the updated list of To Do items.

```
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          #list_of_rows = {"Task": str(task).strip(), "Priority": str(priority).strip()}
52          row = {"Task": str(task).strip(), "Priority": str(priority).strip()}
53          # TODO: Add Code Here!
54          list_of_rows.append(row) # Add the new row to the list/table
55
56          return list_of_rows
57
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL                    Python

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

What is the task? dust
What is the priority? (high/med/low) med
******* The current tasks ToDo are: *******
mop (low)
sweep (med)
mow (high)
dust (med)
*****************************************
```

TODO #2

The next to do item was to remove the selected item from the list. I created a for loop that would check to see if the task entered by the user matched a task in the list of tasks. If there is a match, then the task will be removed. If there is no match for the user provided task input then nothing happens. Either way, the current list of tasks is returned for the user to review to make sure that task removal was performed correctly. If it was not done correctly, they can review the task list and try again.

```python
    @staticmethod
    def remove_data_from_list(task, list_of_rows):
        """ Removes data from a list of dictionary rows

        :param task: (string) with name of task:
        :param list_of_rows: (list) you want filled with file data:
        :return: (list) of dictionary rows
        """
        # TODO: Add Code Here!
        for row in list_of_rows:
            if row["Task"] == task:
                list_of_rows.remove(row)
                break
        return list_of_rows

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
Which option would you like to perform? [1 to 4] - 2

What is the name of task you wish to remove? : dust
******* The current tasks ToDo are: *******
mop (low)
sweep (med)
mow (high)
*****************************************
```

TODO #3

The third To Do writes the user entered information to the text file 'ToDoFile.txt'. The return statement lets the user review what information in the To Do list was saved. The data entered can also be verified by reviewing the saved text file.

```python
    @staticmethod
    def write_data_to_file(file_name, list_of_rows):
        """ Writes data from a list of dictionary rows to a File for option 3

        :param file_name: (string) with name of file:
        :param list_of_rows: (list) you want filled with file data:
        :return: (list) of dictionary rows
        """
        write_file = open("ToDoFile.txt", "w")
        for item in list_of_rows:
            write_file.write(item['Task'] + ',' + item['Priority'] + '\n')
        write_file.close()
        return list_of_rows
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL Pytho

```
Which option would you like to perform? [1 to 4] - 3

Data Saved!
******* The current tasks ToDo are: *******
mop (low)
sweep (med)
mow (high)
*****************************************
```

ToDoFile.txt - Notepad

File Edit Format View Help

```
mop,low
sweep,med
mow,high
```

TODO #4

The fourth To Do provides the presentation code so that the user knows what to do. First, the user is prompted to enter a task. Then, they are asked to select a priority level of low, medium, or high. I also added a return statement so that the user could view the updated list of To Do items.

```
132     @staticmethod
133     def input_new_task_and_priority():
134         """  Gets task and priority values to be added to the list
135 
136         :return: (string, string) with task and priority
137         """
138         task = str(input("What is the task? ")) #ask user to enter task
139         priority = str(input("What is the priority? (high/med/low) ")) #
140         return task, priority
141 
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

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

What is the task? dust
What is the priority? (high/med/low) low
******* The current tasks ToDo are: *******
mop (low)
sweep (med)
mow (high)
dust (low)
*****************************************
```

TODO #5

The final To Do item provides the information that will be presented if the option to remove an item is selected. The user is asked what is the name of the task that they would like to remove. This prompt helps the user know what they should enter after making this selection.

```
142     @staticmethod
143     def input_task_to_remove():
144         """  Gets the task name to be removed from the list
145 
146         :return: (string) with task
147         """
148         removeTask = str(input("What is the name of task you wish to remove? : ")).strip()
149         return removeTask
150 
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  Python

Which option would you like to perform? [1 to 4] - 2

What is the name of task you wish to remove? : dust
******* The current tasks ToDo are: *******
mop (low)
sweep (med)
mow (high)
*************************************
```