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**Course:** IT Fdn 110

Github link:

# Assignment 6 - Classes and Functions

## Introduction:

The following text documents the steps I took to perform the below assignment as part of the course IT Fdn 110 in the UW Professional and Continuing Education program. This week's assignment relied heavily on new topics like classes and functions.

## Body:

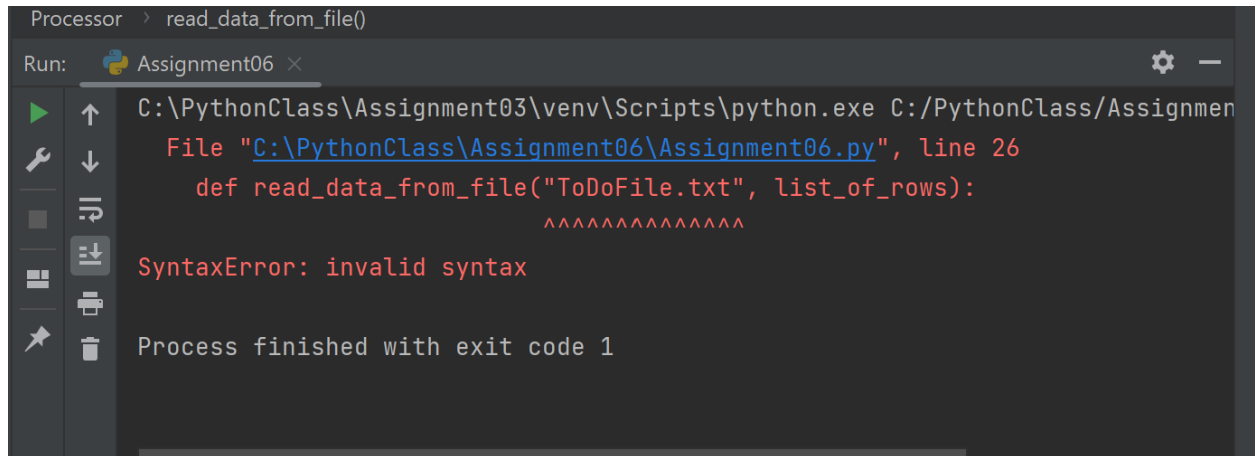
### *Documentation of steps:*

To start this week's assignment, I first went back and reviewed last week's assignment to try and understand anything I might have missed. I reviewed Professor Root's solution to the problem and found that his code and results were far more organized than mine. I want to take this to heart in upcoming assignments to make sure the visual output of my code is pleasant to look at and also effective.

After this, I went through the module 06 videos and learned about classes and functions. I found the `@staticconnector` method very interesting. I dove more into research on this concept by watching a YouTube video and I learned that this method is essentially used to separate functions from each other that can be used in a standalone manner.

I then began the assignment. This week's assignment was very difficult for me and I really struggled trying to grasp the concepts of functions and classes in one week's time. One error I encountered right away was that I had trouble realizing the difference between a piece of code that I should alter versus something that should stay constant.

As can be seen in the below (*Figure 1.1*)

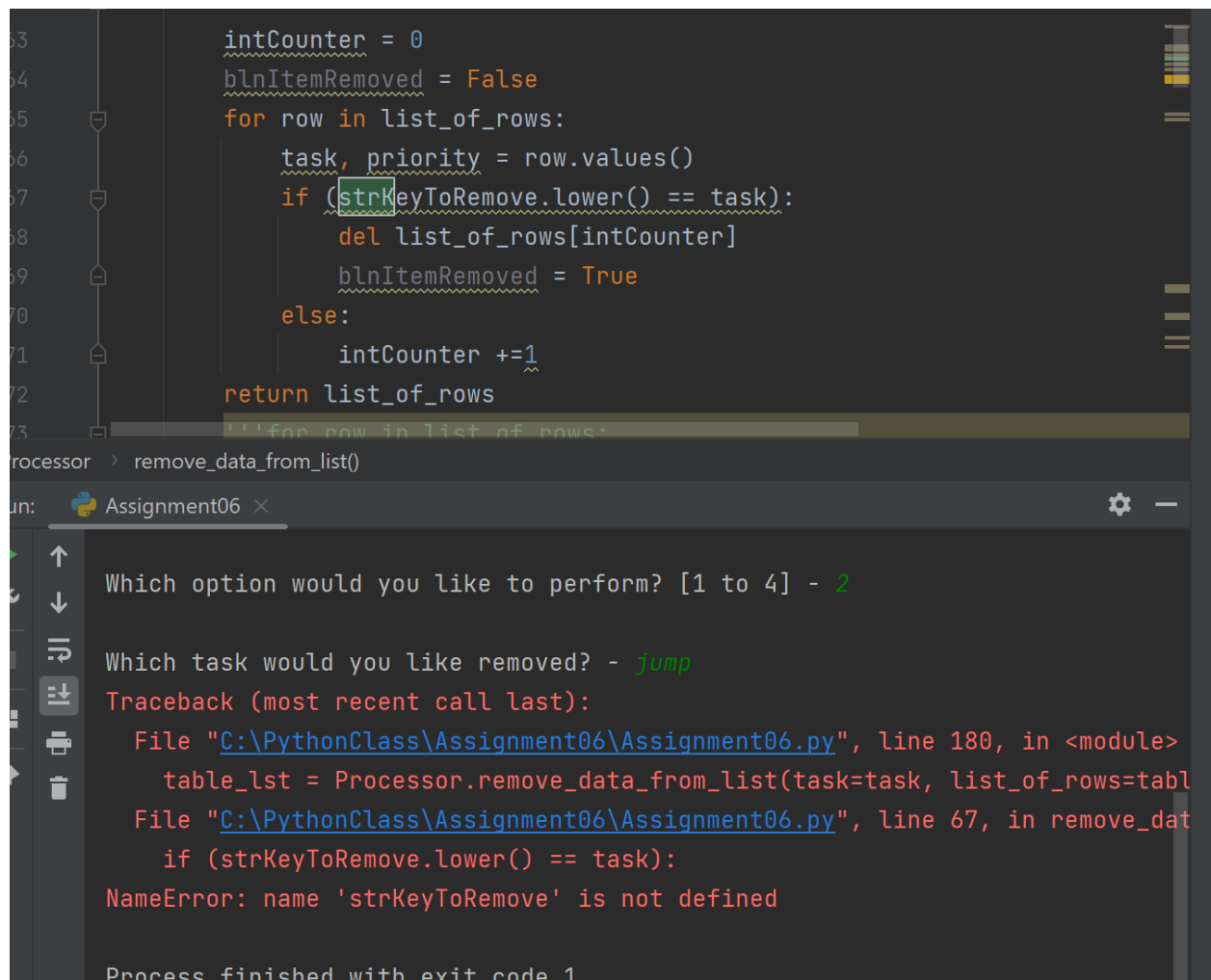
A screenshot of a Python IDE window titled "Processor" with a sub-header "read\_data\_from\_file()". The "Run" tab is active, showing the command "C:\PythonClass\Assignment03\venv\Scripts\python.exe C:/PythonClass/Assignmen". Below this, the file path "C:\PythonClass\Assignment06\Assignment06.py" is shown with "line 26" highlighted. The code snippet visible is "def read\_data\_from\_file('ToDoFile.txt', list\_of\_rows):" followed by a line of asterisks "^^^^^^^^^^^^^^^^^^^^". A red error message "SyntaxError: invalid syntax" is displayed. At the bottom, it says "Process finished with exit code 1".

```
Processor > read_data_from_file()
Run: C:\PythonClass\Assignment03\venv\Scripts\python.exe C:/PythonClass/Assignmen
File "C:\PythonClass\Assignment06\Assignment06.py", line 26
    def read_data_from_file('ToDoFile.txt', list_of_rows):
        ^^^^^^^^^^^^^^^^^^^^^
SyntaxError: invalid syntax
Process finished with exit code 1
```

*Figure 1.1: Error I encountered with file name in parameters*

The above image shows how I thought the parameter “file\_name” needed to be altered with the earlier declared variable “ToDoFile.txt”. Once I realized that these parameters were actually being declared later in the file, I was able to move past this issue. This section of coding in Python actually reminds me a lot of when I took Randal’s SQL class and we did a section of the class on stored procedures. This is similar to how you declare variables in SQL using an @symbol before you set a variable equal to something.

Another issue I encountered in this assignment was trying to get the “remove data” aspect of the program working. I tried constructing a solution similar to what I used in last week’s code but it did not work and kept throwing the below error message.



```
63     intCounter = 0
64     blnItemRemoved = False
65     for row in list_of_rows:
66         task, priority = row.values()
67         if (strKeyToRemove.lower() == task):
68             del list_of_rows[intCounter]
69             blnItemRemoved = True
70         else:
71             intCounter += 1
72     return list_of_rows
73 '''for row in list_of_rows:

processor > remove_data_from_list()

un: Assignment06 x
Which option would you like to perform? [1 to 4] - 2
Which task would you like removed? - jump
Traceback (most recent call last):
  File "C:\PythonClass\Assignment06\Assignment06.py", line 180, in <module>
    table_lst = Processor.remove_data_from_list(task=task, list_of_rows=tabl
  File "C:\PythonClass\Assignment06\Assignment06.py", line 67, in remove_dat
    if (strKeyToRemove.lower() == task):
NameError: name 'strKeyToRemove' is not defined

Process finished with exit code 1
```

**Figure 1.2: Errors with removing data**

I was able to fix this when I made my answer simpler. I realized there was no point to even including “Priority” in this section of the code because we were eliminating lines based on the task. Also, I had to change my syntax to remove rows instead of just a specified index part of the row.

Typically, I like to include three error messages and solutions, but the two fixes above were really all I struggled with. Hopefully I’ll come to a better sense of understanding in the next week.

This was my final output:

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

Enter a task. Eating

Enter a priority for the task [high/low]. high

\*\*\*\*\* The current tasks ToDo are: \*\*\*\*\*

trampolining (high)

eat dinner (high)

eating (high)

\*\*\*\*\*

Menu of Options

1) Add a new Task

2) Remove an existing Task

3) Save Data to File

4) Exit Program

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

Which task would you like removed? - Eating

\*\*\*\*\* The current tasks ToDo are: \*\*\*\*\*

trampolining (high)

eat dinner (high)

\*\*\*\*\*

Menu of Options

1) Add a new Task

2) Remove an existing Task

3) Save Data to File

4) Exit Program

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

Your data has been saved.

Data Saved!

\*\*\*\*\* The current tasks ToDo are: \*\*\*\*\*

trampolining (high)

eat dinner (high)

\*\*\*\*\*

## **Conclusion and Summary:**

This writeup discussed my steps to creating Assignment 06 of IT FDN 110. This assignment was very difficult for me to execute and it felt like a big step up from last week's material. Hopefully next week will reiterate these concepts more instead of teaching more.

## **Citations:**

[https://www.w3schools.com/python/python\\_functions.asp](https://www.w3schools.com/python/python_functions.asp) - links to an external site

[https://www.w3schools.com/python/python\\_classes.asp](https://www.w3schools.com/python/python_classes.asp) - links to an external site