Python Lab 4.1: Use Lists

> The purpose of this practice is to help you apply the concepts discussed up to **now**:
>
> - read file contents
> - manipulate strings
> - add data to a list
> - search in a list

In `lab4_1.py` in the text editor at top-right, write a program which will:

- Open the datafile.txt and read it line by line.
- For each line, split the line into a list of words using the split() method.
- The program should build a list of words.
- For each word on each line check to see if the word is already in the list and if not append it to the list.
- When the program completes, sort and print the resulting words in alphabetical order.

{% next %}

Your output should look like the following:

```
['Arise', 'But', 'It', 'Juliet', 'Who', 'already', 'and', 'breaks', 'east',
'envious', 'fair', 'grief', 'is', 'kill', 'light', 'moon', 'pale', 'sick', 'soft',
'sun', 'the', 'through', 'what', 'window', 'with', 'yonder']
```

Execute your program

Remember in order to execute your code you type in the terminal:

```
python lab4_1.py
```

Check that your code produces correct results.

For the sample datafile the outout shoud be: ['Arise', 'But', 'It', 'Juliet', 'Who', 'already', 'and', 'breaks', 'east', 'envious', 'fair', 'grief', 'is', 'kill', 'light', 'moon', 'pale', 'sick', 'soft', 'sun', 'the', 'through', 'what', 'window', 'with', 'yonder']

{% next %}

Check Your Code

Execute the below to evaluate the correctness of your code using `check50`, but be sure to test it yourself also.

```
check50 mkotsovoulou/ods6001a/main/labs/lab4_1
```

Execute the below to evaluate the style of your code using `style50`.

```
style50 lab4_1.py
```

{% next %}

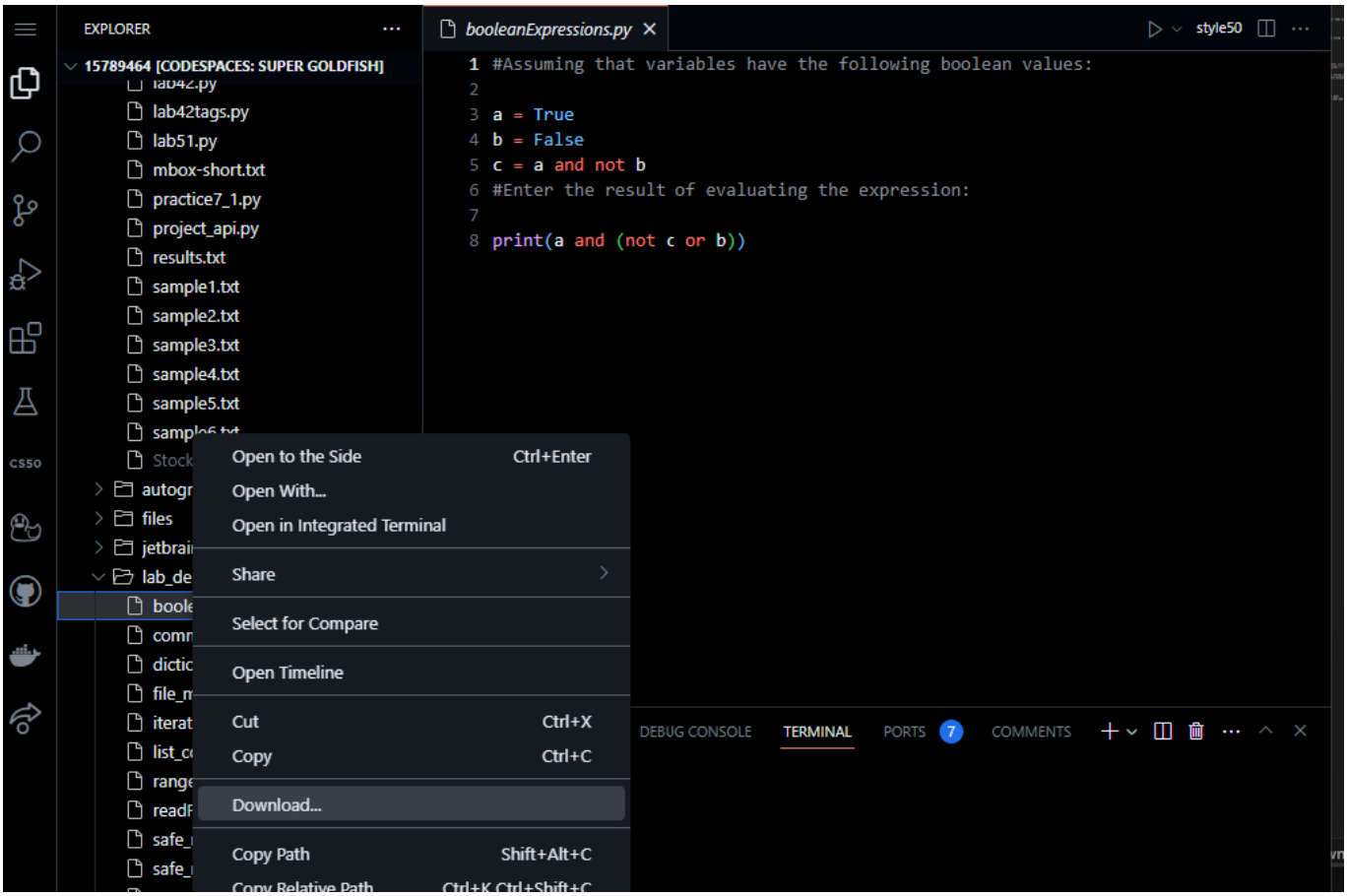
Submit your code

Execute the command below, logging in with your `GitHub username` and `Personal Access Token` when prompted. For security, you'll see asterisks (`*`) instead of the actual characters in your token.

If you do not have generated a Personal Access ToKen follow the instructions: https://docs.github.com/en/authentication/keeping-your-account-and-data-secure/creating-a-personal-access-token

```
submit50 mkotsovoulou/ods6001a/main/labs/lab4_1
```

You can re-submit your solution as many times as you want. When you are happy with your solution, download the code and upload it to Canvas.



Done!