Lab 10 – Dictionaries

Goals

- Work with dictionaries
- File processing

Setup

- Create a new .py file in your desired directory
- Use the following naming convention
    ITP115_l#_lastname_firstname
    (replace # with this lab number)
- Your new file must begin with comments in the following format *(replace the name and email with your actual information)*:
    ```
    # Name
    # ITP 115, Fall 2016
    # Lab L^ (replace ^ with this lab number)
    # USC email
    ```

Requirements

Your program must perform the following:

- Read a file with containing the text of the "Gettysburg Address"
- Using a dictionary, determine the frequency of each letter of the alphabet in the "Gettysburg Address"
- Display an alphabetical list of each letter and the number of times it occurred
- In addition, determine and display the letter(s) which occurred the most
- Your program must use a main function with no global variables
- Use the text file "**gettysburg.txt**"

Sample Output

```
Displaying letter frequency of the Gettysburg Address

a 102

b 14

c 31

d 58

... (rest of the alphabet appears here)

w 28

y 10

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The letter(s) 'e' appeared 165 times
```

Deliverables and Submission Instructions

- A compressed folder (zip file) containing you Python code. This can be done by:
    a. Windows *(you must find the folder on your computer—this can't be done within PyCharm):*
        i. Select your lab file
        ii. Right click
        iii. Send to ->
        iv. Compressed (zipped) folder
        v. Rename this folder with the following name:
            ITP115_l#_lastname_firstname
            (replace # with this assignment number)
        vi. Submit this zipped folder through Blackboard
    b. OSX *(you must find the folder on your computer—this can't be done within PyCharm)*:
        i. Select your lab file
        ii. Right click
        iii. Compress 1 item
        iv. Rename this folder with the following name:
            ITP115_l#_lastname_firstname
            (replace # with this assignment number)
        v. Submit this zipped folder through Blackboard