

Course: SE 412: Selected Programing Languages (*Programming in Python*)
Assignments: HW #2
Due Date: must be submitted on the eJUST.org system by August 9th, 11:55 pm

This assignment is designed to help you better understand text files, strings, sets, and dictionaries in python. Note that you may find the **in** operator helpful on various cases; try them out during your solution.

Submission:

- You must put all your work in one Folder named based on your Name and ID. Then compress this folder into one **.rar** or **.zip** file and upload your compressed file into your account on the JUST **e-learning** system.

Requirements:

1. **[10 Points]** consider the above JSON samples and write an interactive python script with console base MENU (menu driven application) that allows the user to select one of the followings:
 - 0: to read a text file and print its total number of characters
 - 1: to count # of all letters in the file
 - 2: to count # of unique characters in the file
 - 3: to count # occurrences / frequency for all characters in the file
 - 4: to count # occurrences / frequency of all lower case letters in the file ('a-z')
 - 5: to count # occurrences / frequency of all upper case letters in the file ('A-Z')
 - 6: to count # occurrences / frequency of all lower case vowels in the file ('aeiou')
 - 7: to count # occurrences / frequency of all upper case vowels in the file ('AEIOU')
 - 8: to count # occurrences / frequency of all digits in the file ('0123456789')
 - 9: to Exit

The above menu should be always present for the user, each time the user selects a number the result is printed on the screen and the menu is re-printed once again for the user to remember what to select next. This menu keeps asking the user to select an integer until the user selects/enters a 9, which is designed to print out "Thanks and Good Bye" and exits the execution.

Note: Save your solution in a script named **hw2.py**
Each option in the above menu will be graded out of 1 point
The total assignment will be graded out of 10 as usual
Your script will be tested on our sample text file 😊
Please make sure your calculations are correct