

**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] Write an interactive python script with console base MENU (*menu driven application*) that allows the user to read a simple text file and be able to select one of the following options:
  - 0: [1 Points] to read a text file and print its total number of characters
  - 1: [1 Points] to print the total number of letters in the file
  - 2: [1 Points] to print the total number of unique characters in the file
  - 3: [1 Points] to print the frequency of each character in the file
  - 4: [1 Points] to print the frequency of each lower case letter in the file ('a-z')
  - 5: [1 Points] to print the frequency of each upper case letter in the file ('A-Z')
  - 6: [1 Points] to print the frequency of each lower case vowel in the file ('aeiou')
  - 7: [1 Points] to print the frequency of each upper case vowel in the file ('AEIOU')
  - 8: [1 Points] to print the frequency of each digit in the file ('0123456789')
  - 9: [1 Points] 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 `hw3.py`

Each option in the above menu will be graded out of 1 point

The total assignment will be graded out of 10

Your script will be tested on our sample text file 😊

Please make sure your calculations are correct 😊