Fundamentals of Programming for Business

Lab Assignment 4

Due Date: Sunday, Apr. 4th, 2021 by 11:59 pm

Important: *Submit your lab assignment as a single file via Canvas named LastName_FirstName_Lab_LabNumber.zip (e.g., Smith_John_Lab_04.zip). No late submissions will be accepted.*

In this lab, you will write a Python game called "Word Scramble" that requires the player to unscramble and guess some random words.

Description:

You are provided with a file called "words.txt" which contains 3 different categories of words: easy, normal, and difficult. Each category contains a different number of words. Your task is to read a single word from each category **randomly** and display it to the player **scrambled up**. The player then is required to unscramble and guess the words one by one. Keep in mind that scoring is based on the category selected: 30 points for an easy word, 40 points for a normal word, and 70 points for a difficult word, when the word is correctly guessed.

Hints:

Read the entire input file, and create three separate dictionaries called easy, normal, and difficult in such a way that each word becomes a key of the dictionary and the corresponding scrambled word becomes its value.

Use "**random.shuffle()**" from **random** module to scramble your words.
Example:

```
import random
word = "apple"
chrs = list(word)

random.shuffle(chrs)
scrambled = ''.join(chrs)
print(scrambled)
```

***Remember that the scrambled word must be different from the original word.**

Requirements:

- Print some information about the game.
- Let the player choose the difficulty level before the game starts.
- From that level, pick a scrambled word randomly and display it to the player.
- Ask the player to unscramble and guess the original word.
    - Give the player 3 chances to guess the word.
    - if the guess is correct print "Congratulation, you earned … points."
    - if the guess is incorrect, print "Sorry, you earned 0 point."
- Repeat this until all words are exhausted.
- Display the number of correctly and incorrectly guessed words, as well as the player's total score at the end of the game.

Note: You don't need to submit the input file. Only submit your code. Try to modularize your program as much as possible.

Grading:

Each assignment is out of 40 points, graded on:

- Does the code work properly? If doesn't work, describe where you had problems.
- Is the code well commented and readable?
- Did you implement all the required parts?

Submission:

1. For each assignment, create a new directory on your computer, and name it: LastName_FirstName_Lab_LabNumber.zip (Ex: Smith_John_Lab_04.zip).
2. Copy all your Python scripts (the final version of your files) to your directory. You can also add a README.txt that contains information on how to run your code.
3. Zip your folder using the same name as your directory.
4. Go to the Canvas course site. Click the Assignment link for the assignment you wish to submit. You will then see a screen allowing you to submit your assignment.
5. The "Choose File" button allows you to select the file you wish to turn in.
6. Use the Submit button to submit your file for grading.
7. After using Submit, WAIT until you see a confirmation screen showing that your assignment was successfully submitted. If you close the browser window before receiving this confirmation, your submitted file may be corrupted.
8. **No files sent via email will be accepted or considered**. No other submissions, of any form other than that described in this handout, will be accepted or considered.