CS 101 - Spanish Quiz
Fall 2018
Algorithm Due :   **Nov 4th, 2018**
Program Due :   **Nov 11th, 2018**
All work submitted must be your own.
Deliverables : You only need to submit your solution. You must use functions to modularize your work. You should use exception handling where necessary as well. Dictionaries, sets, and lists will come in helpful here.
50 points off for programs that crash on expected input.

Spanish Quiz

The goal of this assignment is for you to become more proficient with file I/O, using functions, and learning to use the dictionary data structure effectively. Dictionaries are very useful data structures when you can map something (e.g. an English word), to something else (e.g. equivalent Spanish words). For this assignment, you will synthesize these concepts together by creating an English-Spanish vocabulary program.

If you've ever taken a foreign language class, you may have studied for tests by creating flash cards to memorize how a given word in a particular language translates into a different language.

For this project, you are to create a vocabulary quiz program that requests the name of a vocabulary file in the current directory, quizzes the user on a subset of the words in the vocabulary file, and then gives the user the option to write out any missed words to a new vocabulary file. While the word lists that we are using are English to Spanish, the program could easily be applied more generally to other languages, giving you a practical replacement to flash cards!

Program Outline

1. Check if there are any vocabulary files in the directory, which by convention are files that end in .txt. Print the list of files found. If there aren't files ending in .txt, display an error message and quit.
2. Have the user select which vocabulary file he or she would like to use. Error check to make sure that they select a valid file (i.e., one of the files listed in step 1).   They may also choose Q to exit the program
3. Store the contents of the vocabulary file into a dictionary data structure.
4. Prompt the user for the number of words he or she would like to be quizzed on. Error check to make sure the number is valid.   It has to be greater than 0 and less than or equal to 10.
5. Quiz the user by using a randomly generated list of English words from the dictionary.
6. If the user misses guesses incorrectly, then output the correct words
7. If the user guesses correct, output that they were correct, if there was more than one

correct answer, show them the other possible correct answers.

8. Show user final results of their quiz. How many right, how many wrong, etc.

Sample Program

```
>>> ============================== RESTART ==============================
>>>

    Vocabulary Program
    Choose a file with the proper number or press Q to quit
        1. places.txt
        2. verbs.txt

Q. Quit Program

===> e
You must choose one of the valid options Q,1,2

    Vocabulary Program
    Choose a file with the proper number or press Q to quit
        1. places.txt
        2. verbs.txt

Q. Quit Program

===> 4
You must choose one of the valid options Q,1,2

    Vocabulary Program
    Choose a file with the proper number or press Q to quit
        1. places.txt
        2. verbs.txt

Q. Quit Program

===> 2

How many words in your quiz? ==> jdk
You must enter an integer

How many words in your quiz? ==> 0
Number must be greater than zero and less than or equal to 10

How many words in your quiz? ==> 12
Number must be greater than zero and less than or equal to 10

How many words in your quiz? ==> 3

#1. Enter a valid spanish phrase for to run
==> correr
Correct.  Good work

#2. Enter a valid spanish phrase for to be
==> estar
Correct.  You could also have chosen ser

#3. Enter a valid spanish phrase for to arrive
```

```
==> arivo
Incorrect, valid choice(s) were llegar

You got 2 out of 3, which is 66.667%

    Vocabulary Program
    Choose a file with the proper number or press Q to quit
        1. places.txt
        2. verbs.txt

Q. Quit Program

===> 1

How many words in your quiz? ==> 3

#1. Enter a valid spanish phrase for school
==> college
Incorrect, valid choice(s) were el colegio,la escuela

#2. Enter a valid spanish phrase for park
==> el parque
Correct.  Good work

#3. Enter a valid spanish phrase for airport
==> el aeropuerto
Correct.  Good work

You got 2 out of 3, which is 66.667%

    Vocabulary Program
    Choose a file with the proper number or press Q to quit
        1. places.txt
        2. verbs.txt

Q. Quit Program

===> q
>>>
```