Project Name: Let's play wordGame!
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Modules used:

(1) random: for randomly generating a letter dictionary (named hand)
(2) string: for some latter inputs
(3) os.path: for opening some text file on Mac OS system

Structure of my project:

This project generate a WordGame whose introduction is shown as following

In this problem, I will implement two version of word games, named 6.00 wordgram. This type of game is similar to Srabble or Words with Friends. Letters are dealt to players, who then construct one or more words out of their letters. Each valid word receieve a score, based on the length and contents of the word.

- Game Rules:
  (1) A player is dealt a hand of n letters chosen at random
  (2) The player arranges the hand into as many words as they want out of the letters, using each letter at most once.
  (3) Some letters may remain unused which will not be scored of course
- Scoring:
  (1) The score for the hand is the sum of the scores for each word formed
  (2) The score for a word is the sum of the points for letters in the word, multiplied by the length of the word, adding 50 points if all n letters are used on the first word created.
  (3) Letters are scored as in Scrabble:

A = 1	B = 3	C = 3	D = 2
E = 1	F = 4	G = 2	H = 4
I = 1	J = 8	K = 5	L = 1
M = 3	N = 1	O = 1	P = 3
Q = 10	R = 1	S = 1	T = 1
U = 1	V = 4	W = 4	X = 8
Y = 4	Z = 10		

  We have defined the dictionary SCRABBLE_LETTER_VALUES that maps each lowercase letter to its Scrabble letter value.
  (4) For example, 'weed' would be worth 32 points ((4+1+1+2) for the four letters, then multiply by len('weed') thus 8*4 = 32).
  (5) As another example, if n = 7 and you make the word 'waybill' on the first try, it would be worth 155 points by

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(4 + 1 + 4 + 3 + 1 + 1 + 1)*7 + 50 = 155
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  where the bonus point 50 is for using all n letters in the first try.
- Game/Program Structure:
  Part A: Loading Words from the External Textfile
  Part B: Scoring a Word
  Part C: Generating and Displaying a Hand
  Part D: Updating a Hand
  Part E: Updating a Hand
  Part F: Playing a Hand
  Part G: Playing a Game: interacting with all parts A-F
  Part H: Playing Our Complete WordGame!!

Problems/Difficulties:

The program structure is one of my biggest concerns. How to make the game structure the simplest while not missing any essential part is the biggest challenge in this project. I redesigned the program structure with different orders and combinations of each part of the program to achieve the ideal version.