CS 8, Winter 2015
Homework Assignment #? (draft)

Assignment Overview

The goal of this project is to gain more practice with recursion.

Project Specifications

You will implement the word game "First Letter, Last Letter." The rule of the game is simple: start with a word, you find another word that starts with the same letter as the end of this word. This process repeats: i.e., keep on finding a new word which starts with the same letter as the end of the previous word.

You will be given a collection of words to use, stored in a file and separated by space. Your task is to find the longest first-letter-last-letter sequences that can be built with the vocabulary in the file.

Deliverables

The deliverable for this assignment is the following file:

> wordGame.py – the source code for your Python program

Be sure to use the specified file name and submit it for grading via the **turnin** system before the project deadline.

Assignment Notes:

1. There is only one exposed function: FLLL(filename, ALLSEQ = Flase, MinLength = 10)
   a. Filename is the name of the vocabulary file,
   b. ALLSEQ is a Boolean indicator that can be either True or False. If it is True, you return all sequences, and if it is False, you return the first sequence found, and
   c. MinLengh is the minimum length of the word sequence to be returned.
2. Words should be used in a case insensitive manner.
3. To avoid an infinite loop, a word can be used at most once in the sequence.

Sample Outputs:

```
>>> wordGame.FLLL('pokemon.txt', False, 5)
['bagon', 'nosepass', 'sableye', 'emboar', 'registeel', 'landorus', 'scolipede', 'emolga', 'audino']
>>> wordGame.FLLL('pokemon.txt', False, 8)
['bagon', 'nosepass', 'sableye', 'emboar', 'registeel', 'landorus', 'scolipede', 'emolga', 'audino']
>>> wordGame.FLLL('pokemon.txt', False, 10)
['bagon', 'nosepass', 'sableye', 'emboar', 'registeel', 'landorus', 'scolipede', 'exeggcute', 'emolga', 'audino']
```

```
>>> wordGame.FLLL('elements.txt', False, 13)
['hydrogen', 'nitrogen', 'neon', 'nickel', 'lithium', 'magnesium', 'manganese',
'europium', 'molybdenum', 'mercury', 'yttrium', 'mendelevium', 'meitnerium']
>>> wordGame.FLLL('elements.txt', False, 14)
['hydrogen', 'nitrogen', 'neon', 'nickel', 'lead', 'dysprosium', 'magnesium', 'm
anganese', 'europium', 'molybdenum', 'mercury', 'yttrium', 'mendelevium', 'meitn
erium']
```