

Activities:

- (1) We want to determine the long words in Alice in Wonderland and their frequency. Create a function that counts words in the 'alice.txt' file.
 - (a) Print out a few lines of 'alice.txt'.
 - (b) Print out the first few words of 'alice.txt'.
 - (c) Use strip and string.punctuation to get rid of punctuation marks in the words.
 - (d) Convert all capital letters to lower-case.
 - (e) Write a function clear that takes a word as a parameter and returns the initial part of a word separated by a hyphen, an underscore, or an apostrophe.
 - (f) Count all words with 7 or more letters in a dictionary.
 - (g) Write a function that gives the frequency of all these words ordered alphabetically.
 - (h) Install the nltk package and use it to import the PorterStemmer. Porter-stemming is a useful way to obtain the stem of a word in English. Then count all stems of words in Alice of length larger than 5 letters.

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thomasschwarz — -zsh — 80x24
[thomasschwarz@Peter-Canisius ~ % python3.8 -m pipinstall nltk ]
/Library/Frameworks/Python.framework/Versions/3.8/bin/python3.8: No module named
pipinstall
[thomasschwarz@Peter-Canisius ~ % python3.8 -m pip install nltk ]
Collecting nltk
  Downloading nltk-3.5.zip (1.4 MB)
    |████████████████████████████████████████| 1.4 MB 5.5 MB/s
Collecting click
  Downloading click-7.1.2-py2.py3-none-any.whl (82 kB)
    |████████████████████████████████████████| 82 kB 3.6 MB/s
Collecting joblib
  Downloading joblib-0.15.1-py3-none-any.whl (298 kB)
    |████████████████████████████████████████| 298 kB 14.8 MB/s
Collecting regex
  Downloading regex-2020.5.14.tar.gz (696 kB)
    |████████████████████████████████████████| 696 kB 18.0 MB/s
Collecting tqdm
  Downloading tqdm-4.46.0-py2.py3-none-any.whl (63 kB)
    |████████████████████████████████████████| 63 kB 5.2 MB/s
Building wheels for collected packages: nltk, regex
  WARNING: Building wheel for nltk failed: [Errno 13] Permission denied: '/Users
/thomasschwarz/Library/Caches/pip/wheels/ff'
  WARNING: Building wheel for regex failed: [Errno 13] Permission denied: '/User
s/thomasschwarz/Library/Caches/pip/wheels/11'
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- (2) Use the timing module in order to time recursive fibonacci with LRU-cache and compare it with one using the fibonacci generator.