Assignment 1

1. Text Files
    a. Write Python codes that would accomplish the following:
        i. Split the text in `alice.txt` into chapters and save the chapters into separate `txt` files named. Name your code file `RUGID_alice_chapters.py`
        ii. After removing the words in `stop_words.txt`, return the most common 3 words with their counts. Name your code file `RUGID_common_words.py`. (Hint: use [collections](#) module)
    b. Write, using the command line, the names of the files you have created in part a into a file.

2. Lists vs. Arrays
    Write a Python code that would accomplish the following:
    a. Ask the user to enter a positive integer `n`.
    b. Create two python lists of random numbers of size `n` each, multiply them, and record the time in seconds rounded up to 2 decimal points.
    c. Repeat the previous exercise with arrays using NumPy.
    d. Compare the times from both methods. Can you name a method that is faster? Reflect on your findings.
    Name your code file `RUGID_scalar_product.py`