

Homework #22 Text files.

Note:

Please, run your code before submitting. If you get an error, try to fix it before submitting your homework. If you get help from anyone, please, make sure that you actually understand the solution.

Tasks:

1. Go to Project Gutenberg top 100 books page:
<https://www.gutenberg.org/browse/scores/top>.

Choose a book (perhaps, a book that you know or already read). Click on the link. Choose "Plain Text UTF-8" format and save the file to your Python working directory. One way to do that is to right-click on the link and choose "Save link as". (Or use a method that work best for you).

2. Open the file in Python. Make sure to implement proper error handling and use "with open" approach similar to what we did in class.
3. Read the first 1000 characters from the book and print on the screen.
4. Next, read the whole book and display the total number of characters, words, and sentences (assume that all sentences are separated by periods/dots). What is the average number of characters in a word in this book? What is the average number of words in a sentence?
5. Is this a "happy" book or a "sad" book? Let's find out how many times the words "happy" and "sad" appear in the book. Use the string method `count()` to find out. Make sure to count both "sad"/"Sad" and "happy"/"Happy". (In "Hamlet", for example, the word "sad" appears 10 times while the word "happy" appears only 4 times ("happy" 3 times, "Happy" once).