CS 101A Homework 26

Due 5/1/2021, 9:00 pm.
Save your code as lastname-homework26.py and submit on Google Classroom

Task 1

Print your current working directory (folder). In Python, create a new folder "HW26". Implement proper error handling (for example, for the case if the folder already exists). Change your current directory to "HW26".

Task 2

Go to https://www.gutenberg.org/browse/scores/top. Pick any 5 books that you like and save the text files (Plain Text UTF-8) to your current working directory (should be "HW26"). In Python, create a list of files located in "HW26" (let's call it BOOKS). Print this list.

NOTE: The text files include additional text about the Project Gutenberg and other details not related to the book itself. I recommend deleting this text if you want your sentiment analysis (below) to be more accurate. To delete the text, feel free to use any text editor (Notepad, MS Word, and so on).

Task 3

Using a for loop and the BOOKS list from Task 2, calculate the total Vader Sentiment for each book (use the "compound" value). Notice that for this task you may still want to split the text into sentences (optionally: you could also try using the analyzer on the whole text of the book instead of individual sentences – see what difference that makes). Print the name of the book and the corresponding sentiment value.

Task 4* (optional)

Extend what you do in Task 3 by creating a dictionary where the name the book file (for example, "hamlet.txt") is the key and the sentiment score is the value. Sort the dictionary by value. Using the sorted dictionary, once again print the name of the book and the corresponding sentiment value.

Task 5

Divide each book into three parts and calculate the average sentiment score for each part (see classwork code for an example how to do that).