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from __future__ import print_function


##Programmatically Assess the Difficulty of Various Texts
#
#
# Reading in a text file and saving it in a variable called file_contents
#
#
with open('/home/achyutganti/huffington','r') as file:
    file_contents = file.read()

##############################################################################
# total sentences can be calculated by counting the number of '.'s in the file.
##############################################################################

total_sentences=file_contents.count('.')
print('Total number of sentences: ',total_sentences)

##############################################################################
#total words can be found out by splitting the sentence and counting it.#
##############################################################################

total_words=len(file_contents.split())
print('Total number of words: ',total_words)

############################################################
# Counting the total number of syllables in the text file.#
############################################################

vowels = ['a','e','i','o','u','y']

total_syllables = 0

for i in file_contents.split():
    i=i.replace('.','').lower()

    if len(i)>1 and (i.endswith('e')) and (i[-2] not in vowels) and (i[-2]!='l'): #
The words that end with 'e'-ignored
        total_syllables-=1

    for j in range(0,len(i)-1):
        if (i[j] in vowels) and (i[j+1] in vowels):   # adjacent vowels get ignored,
counted for just 1.
            total_syllables-=1

    exception=0

    for j in i:
        if j in vowels:
            total_syllables+=1            # every vowel gets a count for 1
            exception+=1

    if (exception==1) and (i.endswith('e')):   # Those words with just one vowel 'e'
in them don't get penalized.
        total_syllables+=1


print('The total syllables are: ',total_syllables)
```

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# Calculating the difficulty of the texts

words_per_sentence = (total_words/float(total_sentences))
syllable_words = (total_syllables/float(total_words))
difficulty = 206.835 - 1.015*(words_per_sentence) - 84.6*(syllable_words)
print('It has a score of: ',difficulty)

# Codifying the table

if difficulty>=0 and difficulty<30:
    print('Level:College Graduate --> Very difficult to read. Best undertood by
University Graduates.')
if difficulty>=30 and difficulty<50:
    print('Level:College --> Difficult to read.')
if difficulty>=50 and difficulty<60:
    print('Level: 10th to 12th grade --> Fairly difficult to read.')
if difficulty>=60 and difficulty<70:
    print('Level: 8th & 9th grade --> Plain English. Easily understood by 13- to 15-
year-old students.')
if difficulty>=70 and difficulty<80:
    print('Level: 7th grade --> Fairly easy to read.')
if difficulty>=80 and difficulty<90:
    print('Level: 6th grade--> Easy to read. Conversational English for consumers.')
if difficulty>=90 and difficulty<100:
    print('Level: 5th grade --> Very easy to read. Easily understood by an average 11-
year-old student.')
```