Isso é CS50

Introdução do CS50 à Ciência da Computação

OpenCourseWare

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Readability

Implement a program that computes the approximate grade level needed to comprehend some text, per the below.

```
$ python readability.py
Text: Congratulations! Today is your day. You're off to Great Places! You're off and away!
Grade 3
```

Getting Started

Log into code.cs50.io (https://code.cs50.io/), click on your terminal window, and execute `cd` by itself. You should find that your terminal window's prompt resembles the below:

```
$
```

Next execute

```
wget https://cdn.cs50.net/2022/fall/psets/6/sentimental-readability.zip
```

in order to download a ZIP called `sentimental-readability.zip` into your codespace.

Then execute

```
unzip sentimental-readability.zip
```

to create a folder called `sentimental-readability`. You no longer need the ZIP file, so you can execute

```
rm sentimental-readability.zip
```

and respond with "y" followed by Enter at the prompt to remove the ZIP file you downloaded.

Now type

```
cd sentimental-readability
```

followed by Enter to move yourself into (i.e., open) that directory. Your prompt should now resemble the below.

```
sentimental-readability/ $
```

Execute `ls` by itself, and you should see `readability.py`. If you run into any trouble, follow these same steps again and see if you can determine where you went wrong!

Specification

- Write, in a file called `readability.py`, a program that first asks the user to type in some text, and then outputs the grade level for the text, according to the Coleman-Liau formula, exactly as you did in Problem Set 2, except that your program this time should be written in Python.
  - Recall that the Coleman-Liau index is computed as `0.0588 * L - 0.296 * S - 15.8`, where `L` is the average number of letters per 100 words in the text, and `S` is the average number of sentences per 100 words in the text.
- Use `get_string` from the CS50 Library to get the user's input, and `print` to output your answer.
- Your program should count the number of letters, words, and sentences in the text. You may assume that a letter is any lowercase character from `a` to `z` or any uppercase character from `A` to `Z`, any sequence of characters separated by spaces should count as a word, and that any occurrence of a period, exclamation point, or question mark indicates the end of a sentence.
- Your program should print as output `"Grade X"` where `X` is the grade level computed by the Coleman-Liau formula, rounded to the nearest integer.
- Se o número de índice resultante for 16 ou superior (equivalente ou superior a um nível de leitura de graduação sênior), seu programa deve produzir `"Grade 16+"` em vez de fornecer o número de índice exato. Se o número do índice for menor que 1, seu programa deve gerar `"Before Grade 1"`.

Uso

Seu programa deve se comportar de acordo com o exemplo abaixo.

```
$ python readability.py
Text: Congratulations! Today is your day. You're off to Great Places! You're off and away!
Grade 3
```

teste

Embora `check50` esteja disponível para esse problema, você é encorajado a primeiro testar seu código por conta própria para cada um dos itens a seguir.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `One fish. Two fish. Red fish. Blue fish.` e pressione enter. Seu programa deve produzir `Before Grade 1`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `Would you like them here or there? I would not like them here or there. I would not like them anywhere.` e pressione enter. Seu programa deve produzir `Grade 2`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `Congratulations! Today is your day. You're off to Great Places! You're off and away!` e pressione enter. Seu programa deve produzir `Grade 3`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `Harry Potter was a highly unusual boy in many ways. For one thing, he hated the summer holidays more than any other time of year. For another, he really wanted to do his homework, but was forced to do it in secret, in the dead of the night. And he also happened to be a wizard.` e pressione enter. Seu programa deve produzir `Grade 5`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since.` e pressione enter. Seu programa deve produzir `Grade 7`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `Alice was beginning to get very tired of sitting by her sister on the bank, and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, "and what is the use of a book," thought Alice "without pictures or conversation?"` e pressione enter. Seu programa deve produzir `Grade 8`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `When he was nearly thirteen, my brother Jem got his arm badly broken at the elbow. When it healed, and Jem's fears of never being able to play football were assuaged, he was seldom self-conscious about his injury. His left arm was somewhat shorter than his right; when he stood or walked, the back of his hand was at right angles to his body, his thumb parallel to his thigh.` e pressione enter. Seu programa deve produzir `Grade 8`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `There are more things in Heaven and Earth, Horatio, than are dreamt of in your philosophy.` e pressione enter. Seu programa deve produzir `Grade 9`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `It was a bright cold day in April, and the clocks were striking thirteen. Winston Smith, his chin nuzzled into his breast in an effort to escape the vile wind, slipped quickly through the glass doors of Victory Mansions, though not quickly enough to prevent a swirl of gritty dust from entering along with him.` e pressione enter. Seu programa deve produzir `Grade 10`.

- Execute seu programa como `python readability.py`, e aguarde um prompt para entrada. Digite `A large class of computational problems involve the determination of properties of graphs, digraphs, integers, arrays of integers, finite families of finite sets, boolean formulas and elements of other countable domains.` e pressione enter. Seu programa deve produzir `Grade 16+`.

Execute o abaixo para avaliar a exatidão do seu código usando `check50` . Mas certifique-se de compilar e testar você mesmo também!

```
check50 cs50/problems/2023/x/sentimental/readability
```

Execute o abaixo para avaliar o estilo do seu código usando `style50` .

```
style50 readability.py
```

Como enviar

Em seu terminal, execute o abaixo para enviar seu trabalho.

```
submit50 cs50/problems/2023/x/sentimental/readability
```