lecture_8_practice

February 3, 2024

1 Practice: Sentiment Analysis and Loop Variables

Now it's your turn to practice sentiment analysis and loop variables

1.1 Sentiment Analysis

First run the code to load up the Sentiment Intensity Analyzer

[1]:
```
import nltk
nltk.download(["vader_lexicon"])
from nltk.sentiment import SentimentIntensityAnalyzer
sia = SentimentIntensityAnalyzer()
```

```
[nltk_data] Downloading package vader_lexicon to
[nltk_data]     /home/jovyan/nltk_data…
[nltk_data]   Package vader_lexicon is already up-to-date!
```

Also, look at this example from the demo of running sentiment analysis:

[2]:
```
sentence = "I love love love pizza!!!!!!!!"
sia.polarity_scores(sentence)["compound"]
```

[2]:
```
0.941
```

Now, copy that two lines of code above, and try out your own sentences, and run the sentiment analysis on them

[3]:
```
sentence = "I love my mom!!!!"
sia.polarity_scores(sentence)["compound"]
```

[3]:
```
0.7482
```

Try several sentences and see how the Sentiment Intensity Analyzer handles them

[5]:
```
sentence = "I love my dad!!!!!!!!!!!!!"
sia.polarity_scores(sentence)["compound"]
```

[5]:
```
0.7482
```

1.2 Loop variables

Now let's practice with loop variables.

Below is a for loop which goes through each letter in the word "Mississipi".

[6]:
```
for letter in "Mississipi":
    print(letter)
```

```
M
i
s
s
i
s
s
i
p
i
```

Make another copy of that loop, but add a variable before the loop called `num_letters` and use it count how many letters were in the word "Mississipi". At the end display the number of letters.

[11]:
```
letters = "Mississipi"
num_letters = len(letters)

for letter in letters:
    print(letter)

print(num_letters)
```

```
M
i
s
s
i
s
s
i
p
i
10
```

Make another copy of what you just did, but this time also count the number of "i"s. Make a variable called `num_i` to count how many "i"s.

Hint: To see if a letter is an "i", check if `letter == "i"`

At the end print out how many of the letters were "i"s and what percentage of the word was "i"s.

[12]:
```
letters = "Mississipi"
num_letters = 0
num_i = 0

for letter in letters:
    num_letters += 1
    if letter == "i":
        num_i += 1
    print(letter)

print(f"The word '{letters}' has {num_letters} letters.")
print(f"The word '{letters}' has {num_i} 'i's.")
print(f"The percentage of 'i's in the word '{letters}' is {(num_i /␣
↪num_letters) * 100:.2f}%.")
```

```
M
i
s
s
i
s
s
i
p
i
The word 'Mississipi' has 10 letters.
The word 'Mississipi' has 4 'i's.
The percentage of 'i's in the word 'Mississipi' is 40.00%.
```

[ ]: