Sentence Dissector Developer Guide

*Overview*

This code can be used to find the basic statistics of the letters ‘A’, ‘C’, ‘T’ and ‘G’ in a string. The class LetterCounter can be imported from letterCounter.py. The initialization of LetterCounter does not need any inputs. To find the statistics of the sentence call the command *LetterCounter.countLetters(“My Sentence”)*. This can be done repeatedly and will override the previous saved data. To see the save data use the function LetterCounter.displayCounts( ). This code could be a great tool in searching for DNA pairs in a string format.

Main.py

**from** letterCounter **import** LetterCounter  
  
myCounter = LetterCounter()  
sentence = **"AaAaaATG Sss CtTTg GgGgG"**myCounter.countLetters(sentence)  
myCounter.displayCounts()

Output

Total Letter Count: 24

A: 6

G: 7

C: 1

T: 4

Percentages

A: 25.0%

G: 29.17%

C: 4.17%

T: 16.67%

Consecutives

A: 6 in a row

G: 5 in a row

C: 1 in a row

T: 3 in a row

*API Docs*

countLetters(string sentence):  
 This function takes a string and finds the statistics mentioned above. The function does not return anything. This function goes through each of the desired letters (“ACGT”) and finds the occurrences of them in the sentence and records them.

displayCounts:

This function takes no arguments or return any outputs. This function will display the last saved results to console.

returnCounts:

Takes no arguments and returns 3 dictionaries holding the statistics saved in the countLetters function.

Github Link: [https://github.com/masidav/SentenceDissecter](https://github.com/masidav/SentenceDissecter%20)

For assistance please contact David Masi at *davidjmasi@gmail.com*