Basic Python

Lab Exercise 2

1. Manipulate strings

A. Examine the program *lab2.py*. In this program, there is a variable called *Sentence*, which contains the first few paragraphs of Leo Tolstoy's novel *War and Peace*.

Using this data please do the following:

A. Count the number of words in the Sentence string.

B. Allow the user to ask how many instances of a given word are in this string.

C. Allow the user to insert a new string at any point in the Sentence string.

D. Print the string in reverse order.

E. Allow the user to specify that every *nth* word will be printed completely in upper case.

1A. The Caesar cipher

Gaius Julius Caesar invented a cipher in which each letter was replaced by a new letter given a numeric shift. I.e with a numeric shift of 3, 'A', would become 'C', 'B' would become 'D' and so forth. Please write a program, using the Sentence data to implement the Caesar shift. Allow the user to specify the shift value. Be able to encode and decode the data using this cipher.