

Caesar Cipher

“The Caesar cipher is one of the simplest and most widely known encryption techniques. It is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of positions down the alphabet. For example, with a shift of 3, A would be replaced by D, B would become E, and so on. The method is named after Julius Caesar, who used it to communicate with his generals.”¹

More recently, ROT13, a Caesar Cipher with a rotation of 13, was used in Internet news groups to censor potentially offensive jokes or comments. The nice thing about ROT13 specifically is that encoding and decoding can be done with the same set of steps (since there are 26 letters in the alphabet).

For this project, you will implement a program that asks the user for a rotation amount and some text. You are free to define the interface as you wish, but here is a sample run of the program (user input is bold and underlined):

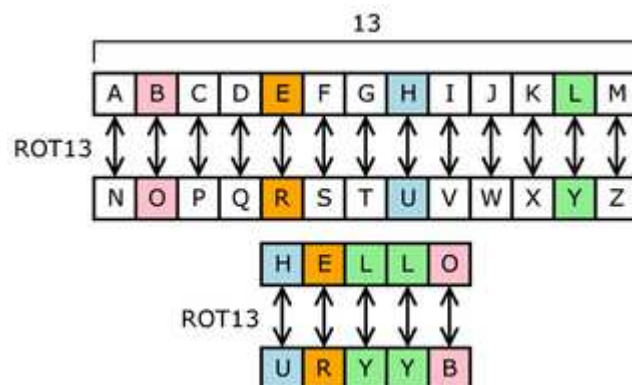
```
Welcome to my Caesar Cipher encryption program!
Would you like to get text from
    (1) the command line or
    (2) a file?
1
    What message do you want to encrypt or decrypt?
Va gur ryringbef, gur rkgebireg ybbxf ng gur BGURE thl'f fubrf.
    How much do you want to rotate by? 13
```

====

In the elevators, the extrovert looks at the OTHER guy's shoes.

Implementation hints:

- One good way to do this is to use a string with all letters of the alphabet and index into it using the rotation factor.
- You may want to look at the `isalpha()` string method. It gives you back `True` if that string is composed of letters and `False` otherwise. This is helpful for skipping punctuation.



¹ http://en.wikipedia.org/wiki/Caesar_cipher