

CS209 – LAB3

Code Breaker 1

Encryption methods used before the 16th century for making secret messages "illegible" were often extremely naive and based on the replacement of one letter by another letter (or a sign); one such method is Caesar's Cipher

https://en.wikipedia.org/wiki/Caesar_cipher (or <http://www.doc88.com/p-9079476968980.html>)

. Even though people were usually careful not to keep the spaces that would have helped guessing words, a simple frequency analysis was usually enough for decryption. And of course today this frequency can be analyzed even quicker by a program, such as the one you are going to write.



You are provided a text file (**secret.txt**, you'll find it in Blackboard) in which, presumably, an 18th century English pirate indicates where he has buried his treasure.

This program is a pretty ambitious one, and you'll complete it over several assignments.

In part 1, you'll perform two tasks:

1. You'll read the secret message into a memory String
2. You'll find the most frequent sequence of three symbols in the message. You can assume that it's "the".

Interface Specifications

Program Call:

The program must take one command-line argument, the name of the secret message file.

If there isn't the right number of arguments, or if the file name is wrong, the program should simply exit with a message (NOT prompt for correct file names).

The name of your class must be **CodeBreaker_1**

Output:

The most frequent sequence of three symbols.