

PROGRAMMING ASSIGNMENT 1

Implement a Vigenere Cipher in C programming language.

Exp: Suppose that the **plaintext** to be encrypted is

Plaintext: ATTACKATDAWN.

The person sending the message chooses a keyword and repeats it until it matches the length of the plaintext, for example, the keyword "LEMON":

Keyword: LEMONLEMONLE

Ciphertext: LXFOPVEFRNHR

Cipher text is found by shifting the **plaintext** according to the letter in **keyword** where A=0, B=1, and so on. For example A in **plaintext** is shifted L times (11 times) to get L in **ciphertext**.

*For the details of the Vigenere Cipher please refer to:
https://en.wikipedia.org/wiki/Vigen%C3%A8re_cipher.*

Make sure your code includes the following properties:

- ☐ There should be two .c files; one for main function and one for decrypt, encrypt.
- ☐ User should be able to select the operations: decrypt, encrypt.
- ☐ All your declarations should be in a header file.
- ☐ You should take the keyword from the user. Keyword length can be static.
- ☐ Comment your code.

Hints:

- ☐ Take a look at the ascii table for keywords!