Assignment 1 [25 marks]

Exercise 1 [20 marks]

Write a cpp program call vigenerecipher.cpp that will perform the encryption steps of a [Vigenère cipher](). First the program will ask for the key then the name of the file that will be encrypted. Your program should not encrypt numbers and should remove all non-letter and non-number characters, this includes newline characters (there should be no newline characters in the encrypted file). A 3 will stay a 3, and a '.' would not be added to the encrypted file. In both cases these will not advance the position in the key. All encrypted letters should be in upper case. Your program then should write the encrypted msg to a file that has the same name as the msg file but is preceded by an 'e' (so the encrypted text for the file msg.txt would be emsg.txt). Also print the encrypted message to the console.

1. Write at least 4 functions(you may want more)
    a. int main()
        i. remember to keep it as short as possible
    b. char shiftchar(char og, char shift)
        i. will shift over og by shift (og = 'B' and shift = 'C' will return 'D')'
    c. void getKey(string &key)
        i. should ask the user for the encryption key
    d. string getMsg(string filename)
        i. should return a string the contains that whole msg

Sample Output

```
>Enter your encryption key
key
>What file do you wish to encrypt
testFile.txt
DLCAYGMOZBSUXJMHNSWTQYZCB2PYJCBYKQ
```

Where testFile.txt is

```
The quick brown fox
jumps over 2 lazy dogs!
```

Submissions

Make sure that your code is neat and is well commented [5 marks]

Submit to D2L a zip/archive file containing the .cpp you have written