

```
1 # creating a simple caesar cipher
2 # this will encrypt only the alpha characters
3 # and will leave other input alone
4 # it also validates the user input
5 import os
6
7 # functions
8
9 def greeting():
10     os.system('clear')
11     print("*" * 37)
12     print("** We are Caesar Cipher-ing **")
13     print("*" * 37)
14     print("\n")
15
16 # get a key for input - include validation checking
17 # this will keep looping and only return when a valid integer is input
18 def get_key_input():
19     while True:
20         key = input('Please enter a number key to use: ')
21         try:
22             val = int(key)
23             return int(key)
24         except ValueError:
25             print("That's not even a number - what are you doing? Please try")
26
27 # be sure the user has entered a message and then return it
28 def get_message():
29     while True:
30         message = input("Please give me a message to encrypt: ")
31         if message == '':
32             print("That is not a message my friend. Try again: \n")
33         else:
34             return message
35
36 def encrypt_upper(character):
37     temp_char = ord(character)
38     new_char = chr((temp_char + key - 65) % 26 + 65)
39     return new_char
40
41 def encrypt_lower(character):
42     temp_char = ord(character)
43     new_char = chr((temp_char + key - 97) % 26 + 97)
44     return new_char
45
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46
47 def process_code(message,key):
48     # need change to ascii # for the math and back to ascii character to print
49     new_message = []
50     for character in message:
51         if character.isupper():
52             new_char = encrypt_upper(character)
53         elif character.islower():
54             new_char = encrypt_lower(character)
55         else:
56             new_char = chr(ord(character))
57         new_message.append(new_char)
58     return new_message
59 # main
60
61
62 greeting()
63 key = get_key_input()
64 message = get_message()
65 new_message = process_code(message,key)
66
67 # end of program
68 print("\nHere is your encrypted message. You're welcome. ")
69 print('\n\t' + "".join(new_message))
70
71
```