Roman Cipher - April 10th, 2016

```
CIPHER_ENCRYPT = {"A": "X", "B": "Y", "C": "Z", "D": "A", "E": "B", "F": "C", "G": "D", "H": "E", "I": "F", "J": "G", "K": "H", "L": "I", "M": "J", "N": "K", "O": "L", "P": "M", "Q": "N", "R": "O", "S": "P", "T": "Q", "U": "R", "V": "S", "W": "T", "X": "U", "Y": "V", "Z": "W"}
1
2
 3
 4
     CIPHER_DECRYPT = {"X": "A", "Y": "B", "Z": "C", "A": "D", "B": "E", "C": "F", "D": "G", "E": "H", "F": "I", "G": "J", "H": "K", "I": "L", "J": "M", "K": "N", "L": "O", "M": "P", "N": "Q", "O": "R", "P": "S", "Q": "T", "R": "U", "S": "V", "T": "W", "U": "X", "V": "Y", "W": "Z"}
 5
 6
 8
9
10
     def encrypt(message):
                                                                                                                                      Roman Cipher
11
          new_message = '
12
                                                                                                                                 To Encrypt
                                                                                                                                                 To Decrypt
13
           # loop through all characters in message
14
                                                                                                                               В
                                                                                                                                   =
                                                                                                                                                    =
15
          # if a character is in CIPHER_ENCRYPT.keys() then we will encrypt it
                                                                                                                               С
                                                                                                                                   =
                                                                                                                                       Z
                                                                                                                                                    =
                                                                                                                                                        С
                                                                                                                                                    =
                # look for the character in the CIPHER_ENCRYPT and add the value to new_message
16
                                                                                                                               Ε
17
                                                                                                                               F
                                                                                                                                                    =
                                                                                                                                                        F
           # if the character is not found in CIPHER_ENCRYPT
                                                                                                                               G
                                                                                                                                               D
                                                                                                                                                        G
                                                                                                                                                    =
19
               # then just add the character to new_message
                                                                                                                               Н
                                                                                                                                                        Н
                                                                                                                                                E
20
21
           return new_message
                                                                                                                               J
K
                                                                                                                                       G
                                                                                                                                                G
                                                                                                                                                Н
                                                                                                                                                        Κ
22
23
24
     def decrypt(message):
                                                                                                                               N
                                                                                                                                                    =
25
          new_message = '
                                                                                                                               0
                                                                                                                                                        0
26
                                                                                                                                       M
                                                                                                                                                M
                                                                                                                                                        Q
                                                                                                                               Q
R
S
T
           # loop through all characters in message
27
                                                                                                                                                0
28
                                                                                                                                                P
                                                                                                                                                        S
          # if a character is in CIPHER_DECRYPT.keys() then we will encrypt it
29
                                                                                                                                                Q
R
30
               # look for the character in the CIPHER_DECRYPT and add the value to new_message
31
                                                                                                                               V
                                                                                                                                                s
                                                                                                                                                    =
                                                                                                                                                        V
32
           # if the character is not found in CIPHER_DECRYPT
                                                                                                                               W
                                                                                                                                                        W
                                                                                                                                                U
                                                                                                                                       U
                                                                                                                                                        X
33
                # then just add the character to new_message
34
                                                                                                                                       W
                                                                                                                                                W
35
          return new_message
36
                                                                                                                              GREETINGS EARTHLINGS
37
                                                                                                                              DOBBOFKDP BXOQEIFKDP
     if __name__ == '__main__':
38
                                                                                                                              GREETINGS EARTHLINGS
39
          # using the input function get a message from the user, store in a variable called message
40
41
           # convert the message to uppercase using the message.upper() function
42
43
           # call the encrypt() function passing message as a parameter, store the result in a variable called encrypted
44
          # print the encrypted message
45
46
47
           # call the decrypt() function passing encrypted as a parameter, store the result in a variable called decrypted
48
49
           # print the decrypted message
50
```