

In [2]:

```
1 # function for Encryption algorithm
2
3 def encrpyt_message(text, step):
4     encrypted_string = "" # empty string intially
5
6     for char in text:
7         if not char.isalpha(): # check for space, number or special character
8             encrypted_string += char
9         elif char.isupper(): # test for uppercase
10            encrypted_string += chr((((ord(char) + step) - 65) % 26) + 65)
11        else: # formulae for lowercase
12            encrypted_string += chr((((ord(char) + step) - 97) % 26) + 97)
13
14    return encrypted_string
15
16 # function for Decryption algorithm. This function will decrypt the encrypted function
17 # .. its like undoing the previous process to get the original message.
18
19 def decrypt_message(text, step):
20     decrypted_str = "" # empty string intially
21
22     for char in text:
23         if not char.isalpha():
24             decrypted_str += char
25         elif char.isupper():
26             decrypted_str += chr((((ord(char) - step) - 65) % 26) + 65) # only the step
27         else:
28             decrypted_str += chr((((ord(char) - step) - 97) % 26) + 97) # only the step
29
30    return decrypted_str
31
32 # Interactive program.
33
34 message = input("Please enter the message: ")
35 step = int(input("Now enter the steps in integral values: ")) # it should be integer
36
37 print()
38 # call the encrypt function.
39 encrpyted_message = encrpyt_message(message, step)
40 print("The encrypted message is: ", encrpyted_message)
41
42 print()
43 # call the dencrypt function.
44 dencrpyted_message = decrypt_message(encrpyted_message, step)
45 print("The original or dencrypted message is: ", dencrpyted_message)
46
```

Please enter the message: Hello! Lets check the encryption message!

Now enter the steps in integral values: 2

The encrypted message is: Jgnnq! Ngvu ejgem vjg gpetarvkqp oguucig!

The original or dencrypted message is: Hello! Lets check the encryption message!

In []: