def encryption():

    print("Encryption")

    print("Message can only be Lower or Uppercase alphabet")

    msg = input("Enter message: ")

    key = int(input("Enter key(0-25): "))  # based on 26 letters of alphabet

    encrypted\_text = ""

    for i in range(len(msg)):

        if ord(msg[i]) == 32:  # ord() will give us the ASCII of space char, which is 32

            encrypted\_text += chr(ord(msg[i]))  # chr() will convert ASCII back to character

        elif ord(msg[i]) + key > 122:

            # after 'z' move back to 'a', 'a' = 97, 'z' = 122

            temp = (ord(msg[i]) + key) - 122  # subtracting 122 to get a lower int and adding it in 96

            encrypted\_text += chr(96+temp)

        elif (ord(msg[i]) + key > 90) and (ord(msg[i]) <= 96):

            # moving back to 'A' after 'Z'

            temp = (ord(msg[i]) + key) - 90

            encrypted\_text += chr(64+temp)

        else:

            # in case of letters being between a-z and A-Z

            encrypted\_text += chr(ord(msg[i]) + key)

    print("Encrypted: " + encrypted\_text)

def decryption():

    print("Decryption")

    print("Message can only be Lower or Uppercase alphabet")

    encrp\_msg = input("Enter encrypted Text: ")

    decrp\_key = int(input("Enter key(0-25): "))

    decrypted\_text = ""

    for i in range(len(encrp\_msg)):

        if ord(encrp\_msg[i]) == 32:

            decrypted\_text += chr(ord(encrp\_msg[i]))

        elif ((ord(encrp\_msg[i]) - decrp\_key) < 97) and ((ord(encrp\_msg[i]) - decrp\_key) > 90):

            # subtract key from letter ASCII and add 26 to current number

            temp = (ord(encrp\_msg[i]) - decrp\_key) + 26

            decrypted\_text += chr(temp)

        elif (ord(encrp\_msg[i]) - decrp\_key) < 65:

            temp = (ord(encrp\_msg[i]) - decrp\_key) + 26

            decrypted\_text += chr(temp)

        else:

            decrypted\_text += chr(ord(encrp\_msg[i]) - decrp\_key)

    print("Decrypted Text: " + decrypted\_text)

def main():

    choice = int(input("1. Encryption\n2. Decryption\nChoose(1,2): "))

    if choice == 1:

        encryption()

    elif choice == 2:

        decryption()

    else:

        print("Wrong Choice")

if \_\_name\_\_ == "\_\_main\_\_":

    main()