def generateKey(string, key):

key = list(key)

if len(string) == len(key):

return(key)

else:

for i in range(len(string) -

len(key)):

key.append(key[i % len(key)])

return("" . join(key))

def cipherText(string, key):

cipher\_text = []

for i in range(len(string)):

x = (ord(string[i]) +

ord(key[i])) % 26

x += ord('A')

cipher\_text.append(chr(x))

return("" . join(cipher\_text))

def originalText(cipher\_text, key):

orig\_text = []

for i in range(len(cipher\_text)):

x = (ord(cipher\_text[i]) -

ord(key[i]) + 26) % 26

x += ord('A')

orig\_text.append(chr(x))

return("" . join(orig\_text))

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

string = "EXPLANATION"

keyword = "LEG"

key = generateKey(string, keyword)

cipher\_text = cipherText(string,key)

print("Ciphertext :", cipher\_text)

print("Original/Decrypted Text :",originalText(cipher\_text, key))

result

Ciphertext : PBVWETLXOZR

Original/Decrypted Text : EXPLANATION