**Program Code (Encryption) –**

def encrypt(str, key):

numstr = [0] \* 100

numkey = [0] \* 100

numcipher = [0] \* 100

print("Entered string is: " + str)

for i in range(len(str)):

numstr[i] = ord(str[i]) - ord('A')

j = 0

for i in range(len(str)):

if j >= len(key):

j = 0

numkey[i] = ord(key[j]) - ord('A')

j += 1

for i in range(len(str)):

numcipher[i] = (numstr[i] + numkey[i]) % 26

print("Vigenere Cipher text is")

for i in range(len(str)):

print(chr(numcipher[i] + ord('A')), end='')

print("")

str = input("Enter a string: ")

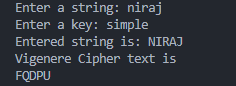
str = str.upper()

key = input("Enter a key: ")

key = key.upper()

encrypt(str, key)

**Output –**

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**Program Code (Decryption)**

def decrypt\_vigenere(str, key):

numstr = [0] \* 100

numkey = [0] \* 100

numcipher = [0] \* 100

j = 0

str = str.upper()

for i in range(len(str)):

numstr[i] = ord(str[i]) - ord('A')

key = key.upper()

i = 0

for j in range(len(key)):

if i >= len(str):

break

numkey[i] = ord(key[j]) - ord('A')

i += 1

while i < len(str):

for j in range(len(key)):

numkey[i] = ord(key[j]) - ord('A')

i += 1

for i in range(len(str)):

numcipher[i] = (numstr[i] - numkey[i]) % 26

return ''.join(chr(numcipher[i] + ord('A')) for i in range(len(str)))

str = input("Enter a string to decrypt: ")

key = input("Enter a key: ")

print("Decrypted Vigenere Cipher text is:")

print(decrypt\_vigenere(str, key))

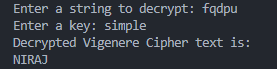
str = input("Enter a string to decrypt: ")

key = input("Enter a key: ")

print("Decrypted Vigenere Cipher text is:")

print(decrypt\_vigenere(str, key))

**Output –**

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