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Additive Cipher Code In Lab Assignment

Program (Python) -

def encryption(text , key):

    # print("Encrypted!! with text" + text + " and key " + key)

    cipher = ""

    for letter in text:

        if letter.isupper():

            l = ord(letter) + key

            if l > 90:

                l = 65 + (l - 91)

            cipher += chr(l)

        else:

            l = ord(letter) + key

            if l > 122:

                l = 97 + (l - 123)

            cipher += chr(l)

    text1 = ""

    for letter in cipher:

        if letter.isupper():

            l = ord(letter) - key

            if l < 65:

                l = 91 - (65 - l)

            text1 += chr(l)

        else:

            l = ord(letter) - key

            if l < 97:

                l = 123  - (97 - l)

            text1 += chr(l)

    if text == text1:

        print("Verification complete!! encrypted text is: " , cipher)

        print(cipher)

    else:

        print("Incorrect Cipher")

        print(cipher)

        print(text)

        print(text1)

def decryption(cipher , key):

    text = ""

    for letter in cipher:

        if letter.isupper():

            l = ord(letter) - key

            if l < 65:

                l = 91 - (65 - l)

            text += chr(l)

        else:

            l = ord(letter) - key

            if l < 97:

                l = 123  - (97 - l)

            text += chr(l)

    cipher1 = ""

    for letter in text:

        if letter.isupper():

            l = ord(letter) + key

            if l > 90:

                l = 65 + (l - 91)

            cipher1 += chr(l)

        else:

            l = ord(letter) + key

            if l > 122:

                l = 97 + (l - 123)

            cipher1 += chr(l)

    if cipher == cipher1:

        print("Verification complete!! decrypted text is: " , text)

    else:

        print("Incorrect Text")

x = True

while(x):

    print("Enter 1 for encryption \n")

    print("Enter 2 for decryption \n")

    print("Enter 3 to exit \n")

    choice = int(input("Enter your choice: "))

    if choice == 1:

        text = input("Enter the text you want to encrypt: ")

        key = int(input("Enter your key: "))

        encryption(text,key)

    elif choice == 2:

        text = input("Enter the text you want to encrypt: ")

        key = int(input("Enter your key: "))

        decryption(text,key)

    elif choice == 3:

        x = False

    else:

        print("Please enter a valid input!!")

Output:-

