

1. Encrypt message 1 - python encrypt.py

Enter a number: The key is 9

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laurasaad — isaad1@gsuad.gsu.edu@snowball:~/3320/HW3 — ssh isaad1@snowball.cs.gsu.edu — 10...  
import sys  
  
Input = open("message1.txt").read()  
file = open("encrypt.txt", "w")  
  
key = input('Enter a number: ')  
  
result = ""  
for i in Input:  
    i.lower()  
    if(ord(i) >= ord('a') and ord(i) <= ord('z')):  
        character = chr(97 + (ord(i) + key - 97) % 26)  
        file.write(character)  
    else:  
        file.write(i)  
  
file.close()  
  
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[[lsaad1@gsuad.gsu.edu@snowball HW3]$ python encrypt.py
[Enter a number: 9
[[lsaad1@gsuad.gsu.edu@snowball HW3]$ ls
ceaser1.txt ceaser2.txt encrypt.py encrypt.txt message1.txt
[[lsaad1@gsuad.gsu.edu@snowball HW3]$ more encrypt.txt
Tqnan fjb j kxh jc xda blqxxu, fn dbnm cx ljuu qrv Sjmoxam jwm Mnacxw.
Hrb anju wjvn fjb Screerwpb. Hn fjb cqn vxbc ngcajxamrwjah ujm I nena
ljvn jlaxbb. I knurnen qn anjuuh urtnm bcdmh. Hn dbnm cx pnc rwcx jfodu
axfb oxa brccrwp dy rw knm jwm anjmrwp Gannt; jwm jb oxa Fanwlq raanpduja
enakb cqnan fjb brvyuh wx tnnyrwp qrv jfjh oaxv cqn timer. Hn fjb oduu xo
fnram jwm dwwjcdaju wxcrxwb jkxdc knrwp j lanmrc cx qrb yjanwcb jwm jw
qxwxda cx cqn blqxxu; jwm qn hnjawnm cx frw yarinb, jwm paxf dy jwm kn j
lunena vjw, jwm qjm juu cqxbn bxacb xo fnjt-vrwmnm rmnjb. I wnena twnf
bdlq j bcawpwn lanjcdan, hnc qjavunbb, vrwm hxd, jb cqn kjkn dwkxaw.

Wnuu, cqjc kxh dbnm cx pnc ruu jkxdc cfrln j fnnt, bx cqjc qn lxdumw'c px
cx blqxxu. Tqnan wnena fjb bdlq j kxh cx pnc ruu jb cqjc Sjmoxam jwm
Mnacxw. Io cqnan fjb jwh twxfw mrbnjbn pxrwp frcqrw cnw vrumb xo qrv, qn
qjm rc, jwm qjm rc kjmuh. Hn fxdum cjt n kaxwlrqcrb rw cqn mxp-mjhb, jwm
qjen qjh-onena jc Cqarbcvjb. Aocna j brg fnntb' ynarxm xo maxdpqc, qn
fxdum kn bcarltnw mxfw frcq aqndvjcr l onena; jwm qn fxdum px xdc rw j
Nxenvkna oxp jwm lxvn qxvn frcq j bdwbcaxtn.

Tqnh ydc qrv dwmna ujdpprwp-pjb xwn hnja, yxxa ujm, jwm manf juu qrb
cnncq, jwm pjen qrv j ojubn bnc, knljdbn qn bdoonanm bx cnaarkuh frcq
cxcqjln; jwm cqnw rc cdawnm cx wndajuprj jwm nja-jlqn. Hn fjb wnena
frcqxdc j lxum, nglnc xwln oxa wrwn fnntb fqrn qn qjm bljaunc onena;
jwm qn jufjhb qjm lqrukujrb. Ddarwp cqn panjc lqxunaj bljan xo 1871,
xda wnrpqkxdaqxsm fjb brwpdujah oann oaxv rc. Tqnan fjb xwuh xwn
anydcnm ljb n rw cqn fqxun yjarbq: cqjc ljb fjb hxdwp Screerwpb.

Hn qjm cx bcxy rw knm fqnw qn fjb ruu, jwm njc lqrltnw jwm ldbcjamb jwm
qxc-qxdbn pajynb; jwm qn fxdum urn cqnan jwm bxk, knljdbn cqn fxdumw'c
unc qrv mx Ljcrw ngalnrbn, jwm cxxt qrb Gnavjw pajvvja jfjh oaxv qrv.

Awm fn xcqna kxhb, fqx fxdum qjen bjlarorlnm cnw cnabv xo xda blqxxu-uron
oxa cqn bjtn xo knrwp ruu oxa j mjh, jwm qjm wx mnbran fqjcnena cx pren
xda yjanwcb jwh ngldbn oxa knrwp bcdlt-dy jkxdc db, lxdumw'c ljclq bx

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2. Get the key from ceaser1.txt

Python decode.py

Enter the text: ceaser1.txt

Key is 3

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laurasaad — lsaad1@gsuad.gsu.edu@snowball:~/3320/HW3 — ssh lsaad1@sn...
def Key(Input):
    number=[0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0]
    alpha='abcdefghijklmnopqrstuvwxyz'

    for i in Input:
        if i in alpha:
            index = alpha.find(i)
            number[index] = number[index] + 1

    Max1 = 0
    Index1 = 0
    for j in range(26):
        if(Max1 < number[j]):
            Max1 = number[j]
            Index1 = j #swap

    key = Index1 - 4
    if(key<0):
        key+=26

    return key

filename = raw_input("Enter the file name: ")
Input = open("{0}".format(filename)).read()
key = Key(Input)
print("The key is: {0}".format(key))
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NameError: name 'Input' is not defined
[[lsaad1@gsuad.gsu.edu@snowball HW3]$ vi decrypt1.py
[[lsaad1@gsuad.gsu.edu@snowball HW3]$ python decrypt1.py
Enter the file name: ceaser1.txt
The key is: 3
[[lsaad1@gsuad.gsu.edu@snowball HW3]$ vi decrypt1.py
[[lsaad1@gsuad.gsu.edu@snowball HW3]$
```

Q3.

Decrypt ceaser2.txt

Python decrypt2.py → enter the file ceaser2.txt

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def Key(Input):
    number = [0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0]
    alpha = "abcdefghijklmnopqrstuvwxyz"

    for i in Input:
        if i in alpha:
            index = alpha.find(i)
            number[index] += 1

    Max1 = 0
    Index1 = 0
    for j in range(26):
        if(Max1 < number[j]):
            Max1 = number[j]
            Index1 = j    #swap

    key = Index1 - 4
    if(key<0):
        key+=26

    return key

def get_text(Input,key):
    result = ""
    for i in range(len(Input)):
        c = Input[i]
        if(c.isupper()):
            c=c.lower()
        if(c.isalpha()):
            if(ord(c) - key < 0):
                result += chr((ord(c) - key + 26 - 97) %26 +97)
            else:
                result += chr((ord(c) - key - 97) %26 +97)
        else:
            result += c
    return result

filename = raw_input("Enter the file name: ")
Input = open("{0}".format(filename)).read()
key = Key(Input)
print("The key is: {0} \n".format(key))
print("Recovered text: \n {0}".format(get_text(Input,key)))
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[lisaad1@gsuad.gsu.edu@snowball HW3]$ vi decrypt2.py
[lisaad1@gsuad.gsu.edu@snowball HW3]$ python decrypt2.py
Enter the file name: ceaser2.txt
The key is: 6
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Recovered text:

"no," said harris, "if you want rest and change, you can't beat a sea trip."

i objected to the sea trip strongly. a sea trip does you good when you are going to have a couple of months of it, but, for a week, it is wicked.

you start on monday with the idea implanted in your bosom that you are going to enjoy yourself. you wave an airy adieu to the boys on shore, light your biggest pipe, and swagger about the deck as if you were captain cook, sir francis drake, and christopher columbus all rolled into one. on tuesday, you wish you hadn't come. on wednesday, thursday, and friday, you wish you were dead. on saturday, you are able to swallow a little beef tea, and to sit up on deck, and answer with a wan, sweet smile when kindhearted people ask you how you feel now. on sunday, you begin to walk about again, and take solid food. and on monday morning, as, with your bag and umbrella in your hand, you stand by the gunwale, waiting to step ashore, you begin to thoroughly like it.

i remember my brotherinlaw going for a short sea trip once, for the benefit of his health. he took a return berth from london to liverpool; and when he got to liverpool, the only thing he was anxious about was to sell that return ticket.

it was offered round the town at a tremendous reduction, so i am told; and was eventually sold for eighteenpence to a biliouslooking youth who had just been advised by his medical men to go to the seaside, and take exercise.

"seaside!" said my brotherinlaw, pressing the ticket affectionately into his hand; "why, you'll have enough to last you a lifetime; and as for exercise! why, you'll get more exercise, sitting down on that ship, than you would turning somersaults on dry land."

he himself my brotherinlaw came back by train. he said the north western railway was healthy enough for him.