In [6]:

```
#String Problem:01

strng = input("Enter a string: ")
upr_case = 0
lwr_case = 0
for k in range(len(strng)):
    if ord(strng[k])>64 and ord(strng[k])<91:
        upr_case = upr_case+1
    else:
        lwr_case = lwr_case+1
if lwr_case>=upr_case:
    print(strng.lower())
else:
    print(strng.upper())
```

```
Enter a string: HOusE
HOUSE
```

In [2]:

```
#String Problem:02

variable_1 =input("please enter input: ")

num_count = 0
word_count = 0

for count in variable_1:
    if(ord(count)>= 48 and ord(count)<=57):
        num_count = 1
    elif((ord(count)>= 65 and ord(count)<=90) or (ord(count)>= 97 and ord(co
        word_count = 1

if(word_count == 1 and num_count == 0):
    print("WORD")
elif(word_count == 0 and num_count == 1):
    print("NUMBER")
elif(word_count == 1 and num_count == 1):
    print("MIXED")
```

```
please enter input: Hello
WORD
```

In [7]:

```
#String Problem:03

inpt = input("Enter a string: ")
frst_upr = None
scnd_upr = None
count = 0
for k in inpt:
    if "a" <= k <= "z" :
        pass
    else:
        if frst_upr == None:
            frst_upr = count
        else:
            scnd_upr = count
    count += 1
if scnd_upr - frst_upr == 1:
    print("BLANK")
else:
    print(inpt[frst_upr+1:scnd_upr])
```

```
Enter a string: coDIng
BLANK
```

In [1]:

```
#String Problem:04

string = input("Enter a string: ")
if "too good" in string:
    print(string.replace("too good","excellent"))
else:
    print(string)
```

```
Enter a string: This book is good too!
This book is good too!
```

In [4]:

```
#String Problem:05

strng1 = input("Enter a string: ")
strng2 = input("Enter another string: ")
new_strng = ""
count = 0

for i in strng1:
    if i in strng2:
        new_strng = new_strng + i
        count = count + 1

for i in strng2:
    if i in strng1:
        new_strng = new_strng + i
        count = count + 1

if count == 0:
    print("Nothing in common.")
else:
    print(new_strng)
```

```
Enter a string: dean
Enter another string: tom
Nothing in common.
```

In [1]:

```
#String Problem:06

inpt = input("Enter the password: ")
upper_used = False
lower_used = False
digit_used = False
speical_char_used = False
speical_char = "_$#@"
final_msg = ""

for w in inpt:
    if upper_used == False:
        if w.isupper():
            upper_used = True
    if lower_used == False:
        if w.islower():
            lower_used = True
    if digit_used == False:
        if w.isdecimal():
            digit_used = True
    if speical_char_used == False:
        if w in speical_char:
            speical_char_used = True


if upper_used and lower_used and digit_used and speical_char_used:
    final_msg += "OK"
if upper_used == False:
    final_msg += "Uppercase charcther missing, "
if lower_used == False:
    final_msg += "Lowercase character missing, "
if digit_used == False:
    final_msg += "Digit missing, "
if speical_char_used == False:
    final_msg += "Speical character missing"
if final_msg[-2] is ",":
    final_msg == final_msg[:-2]

```

```
39  print(final_msg)
```

```
<>:36: SyntaxWarning: "is" with a literal. Did you mean "=="?
<>:36: SyntaxWarning: "is" with a literal. Did you mean "=="?


Enter the password: ohmybracu
Uppercase charcther missing, Digit missing, Speical character missing


<ipython-input-1-69dce93a273d>:36: SyntaxWarning: "is" with a literal. Did you mean "=="?
  if final_msg[-2] is ",":
```

In [3]:

```
#List Problem:01

lst1 = []
lst2 = []
inpt = 1

while inpt == 1:
    inpt_nmbr = input("Enter number: ")
    if inpt_nmbr != "STOP":
        lst1.append(inpt_nmbr)
    else:
        break

lst1.sort()
for i in range (len(lst1)):
    if lst1[i] in lst2:
        continue
    else:
        counter = lst1.count(lst1[i])
        lst2.append(lst1[i])
        print(str(lst1[i]) + "-" + str(counter) + " times")
```

```
Enter number: 10
Enter number: 20
Enter number: 20
Enter number: 30
Enter number: 10
Enter number: 50
Enter number: 90
Enter number: STOP
10-2 times
20-2 times
30-1 times
50-1 times
90-1 times
```

In [1]:

```
#List Problem:02

lst = []
total = []
number = int(input ("Enter number of list: "))
for k  in range(number):
    inpt = input("Enter numbers: ").split()
    for s in range(len(inpt)):
        inpt[s] = int(inpt[s])
    lst.append(inpt)
    total.append(sum(lst[k]))
print(max(total))
print(lst[total.index(max(total))])
```

```
Enter number of list: 4
Enter numbers: 1 2 3
Enter numbers: 4 5 6
Enter numbers: 10 11 12
Enter numbers: 7 8 9
33
[10, 11, 12]
```

In [2]:

```
#List Problem:03

inpt1 = input("Enter numbers: ").split()
inpt2 = input("Enter numbers: ").split()
lst = []
for i in range(len(inpt1)):
    new = int(inpt1[i])
    for i in inpt2:
        lst.append(new*int(i))
print(lst)
```

```
Enter numbers: 2 3 6
Enter numbers: 3 4 5
[6, 8, 10, 9, 12, 15, 18, 24, 30]
```

In [1]:

```
#List Problem:04

inpt = None
while inpt != "STOP":
    inpt = input("Enter list of N number: ")
    inpt_1 = inpt.split()
    lst = []
    if inpt != "STOP":
        for i in range(len(inpt_1) - 1):
            new = abs(int(inpt_1[i+1]) - int(inpt_1[i]))
            if new < len(inpt_1) and new not in lst:
                lst.append(new)
            else:
                continue

        if len(lst) != (len(inpt_1) - 1):
            print("Not UB Jumper")

        else:
            print("UB Jumper")

    else:
        continue
```

```
Enter list of N number: 1 4 2 3
UB Jumper
Enter list of N number: 2 1 4 6 10
UB Jumper
Enter list of N number: 1 4 2 -1 6
Not UB Jumper
Enter list of N number: STOP
```

In [6]:

```
#List Problem:05

lwr = []
upr = []
even = []
odd = []
final = []
inpt = input("Enter string: ")

for k in range(len(inpt)):
    if inpt[k].isupper():
        upr.append(inpt[k])
    elif inpt[k].islower():
        lwr.append(inpt[k])
    elif inpt[k].isnumeric():
        if inpt[k] in ["2", "4", "6", "8"]:
            even.append(inpt[k])
        else:
            odd.append(inpt[k])

lwr.sort()
upr.sort()
odd.sort()
even.sort()
final = lwr + upr + odd + even
for i in range(len(final)):
    print(final[i], end = "")
```

```
Enter string: Bracu1234
acruB1324
```

In [3]:

```
#List Problem:06

inpt_1 = input("Enter first input: ").split()
inpt_2 = input("Enter second input: ").split()

programmers = 0

for i in inpt_2:
    new = int(inpt_1[-1]) + int(i)
    if new > 5:
        continue
    else:
        programmers = programmers + 1

print(programmers // 3)
```

```
Enter first input: 6 5
Enter second input: 0 0 0 0 0 0
2
```

In [2]:

```
#Dictionary & Tuple Problem:01

strr1 = input("Sample Input 1: ").split(", ")
strr2 = input("Sample Input 2: ").split(", ")
dc1 = {}
dict_2 = {}
for i in strr1:
    k, v = i.split(":")
    dc1[k.strip()] = int(v.strip())
for i in strr2:
    k, v = i.split(":")
    dict_2[k.strip()] = int(v.strip())
for k, v in dict_2.items():
    if dc1.get(k) == None:
        dc1[k] = v
    else:
        dc1[k] += v
new = []
for val in dc1.values():
    if val not in new:
        new.append(val)
new.sort()
new = tuple(new)
print(dc1)
print("Values:", new)
```

```
Sample Input 1: a: 100, b: 100, c: 200, d: 300
Sample Input 2: a: 300, b: 200, d: 400, e: 200
{'a': 400, 'b': 300, 'c': 200, 'd': 700, 'e': 200}
Values: (200, 300, 400, 700)
```

In [5]:

```
#Dictionary & Tuple Problem:02

dict_1 = {}
inpt = None

while inpt != "STOP":
    inpt = input("Enter Number: ")
    if inpt.isdigit() == True:
        if dict_1.get(inpt) != None:
            dict_1[inpt] = dict_1[inpt] + 1
        else:
            dict_1[inpt] = 1
    else:
        continue

for key,value in dict_1.items():
    print("{0} - {1} times". format (int(key),value))
```

```
Enter Number: 10
Enter Number: 20
Enter Number: 20
Enter Number: 30
Enter Number: 10
Enter Number: 50
Enter Number: 90
Enter Number: STOP
10 - 2 times
20 - 2 times
30 - 1 times
50 - 1 times
90 - 1 times
```

In [6]:

```
#Dictionary & Tuple Problem:03

inpt = input("Enter a dictionary: ").split(",")

dict_1 = {}
for i in inpt:
    inpt_2 = i.split(":")
    if dict_1.get(inpt_2[-1]) != None:
        dict_1[inpt_2[-1]].append(inpt_2[0])
    else:
        dict_1[inpt_2[-1]] = [inpt_2[0]]

print(dict_1)
```

```
Enter a dictionary: key1 : value1, key2 : value2, key3 : value1
{' value1': ['key1 ', ' key3 '], ' value2': [' key2 ']}
```

In [10]:

```
#Dictionary & Tuple Problem:04

inpt = input("Enter first string: ")
inpt_2 = ""
inpt_dict = {}

for i in range(1):
    inpt_3 = input("Enter second string: ")
    inpt_2 = inpt_3

    for i in inpt_2:
        if inpt_dict.get(i) != None:
            inpt_dict[i] = inpt_dict[i] + 1
        else:
            inpt_dict[i] = 1

chck = True
count = 0
for i in inpt:
    if inpt_dict.get(i) != 1:
        chck = False
        break
    elif len(inpt) != len(inpt_2):
        chck = False
        break
    else:
        count = count + 1

if chck != False:
    print("Those strings are anagrams.")
else:
    print("Those strings are not anagrams")
```

```
Enter first string: evil
Enter second string: live
Those strings are anagrams.
```

In [1]:

```
#Dictionary & Tuple Problem:05

gvn = {".":"1",",":"11","?":"111","!":"1111",":":"11111","A":"2",
      "B":"22","C":"222","D":"3","E":"33","F":"333","G":"4","H":"44",
      "I":"444","J":"5","K":"55","L":"555","M":"6","N":"66","O":"666",
      "P":"7","Q":"77","R":"777","S":"7777","T":"8","U":"88","V":"888",
      "W":"9","X":"99","Y":"999","Z":"9999"," ":"0"}

inpt = input("Please enter a string: ").upper()
for k in inpt:
    print(gvn[k], end = "")
```

```
Please enter a string: Hello, World!
4433555555666110966677755531111
```