06 - Strings in Python

Ex. No. : 6.1 **Date:**

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Count Chars

Write a python program to count all letters, digits, and special symbols respectively from a given string
For example:

Input	Result
rec@123	
3	
3	
1	

CODE:

```
s=input()
alph=0
num=0
sc=0
for i in  s:
   if(i.isalpha()):
      alph+=1
   elif(i.isalnum()):
      num+=1
   else:
      sc+=1
print(alph,num,sc,sep="\n")
```

Ex. No. : 6.2 **Date:**

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Decompress the String

Assume that the given string has enough memory. Don't use any extra space(IN-PLACE)

Sample Input 1
a2b4c6

Sample Output 1
aabbbbccccccc

CODE:

```
s=input()
nos="0123456789"
i=0
while(i!=len(s)):
    num=""
    if(s[i] not in nos):
        ch=s[i]
        i+=1
    else:
        while(s[i] in nos):
            num=num+s[i]
            i+=1
            if(i==len(s)):
```

```
        break
print(ch*int(num),end="")
```

Ex. No. : 6.3 **Date:**

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First N Common Chars

Two string values S1, S2 are passed as the input. The program must print first N characters present in S1 which are also present in S2.Input Format:

The first line contains S1.
The second line contains S2.
The third line contains N.

Output Format:

The first line contains the N characters present in S1 which are also present in S2.

Boundary Conditions:

2 <= N <= 10
2 <= Length of S1, S2 <= 1000

Example Input/Output 1:

Input:

abcbde
cdefghbb
3

Output:

bcd

Note:

b occurs twice in common but must be printed only once.

CODE:

```
s1=input()
s2=input()
l=[]
i=0
n=int(input())
while(len(l)!=n):
    if s1[i] in s2 and s1[i] not in l:
            l.append(s1[i])
    i+=1
for i in l:
    print(i,end="")
```

Ex. No. : 6.4 **Date:**

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Remove Characters

Given two Strings s1 and s2, remove all the characters from s1 which is present in s2.

Constraints
1<= string length <= 200

Sample Input 1
experience
enc

Sample Output 1
xpri

CODE:

```
s1=list(input())
s2=list(input())
for i in range(len(s2)):
    j=0
    while(j<len(s1)):
        if(s2[i]==s1[j]):
            s1.remove(s1[j])
        j+=1
for i in s1:
    print(i,end="")
```

Ex. No. : 6.5 **Date:**

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Remove Palindrome Words

String should contain only the words are not palindrome.

Sample Input 1
Malayalam is my mother tongue

Sample Output 1
is my mother tongue
For example:

Input	Expected
Malayalam is my mother tongue	is my mother tongue
He did a good deed	he good

CODE:

```
s1=input()
s1=s1.lower()
s2=s1.split()
for i in s2:
    if(i==i[::-1]):
        continue
    else:
        print(i,end=' ')
```

Ex. No. : 6.6 **Date:**

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Return Second World in Uppercase

Write a program that takes as input a string (sentence), and returns its second word in uppercase.

For example:

If input is “Wipro Technologies Bangalore” the function should return “TECHNOLOGIES”
If input is “Hello World” the function should return “WORLD”
If input is “Hello” the program should return “LESS”

NOTE 1: If input is a sentence with less than 2 words, the program should return the word “LESS”.
NOTE 2: The result should have no leading or trailing spaces.

For example:

Input Result
Wipro Technologies Bangalore
TECHNOLOGIES
Hello World
WORLD
Hello
LESS

CODE:

```
s=list(input().split())
if(len(s)<2):
    print("LESS")
else:
 print(s[1].upper())
```

Ex. No. : 6.7 **Date:**

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Revers String

Reverse a string without affecting special characters. Given a string S, containing special characters and all the alphabets, reverse the string without affecting the positions of the special characters.
Input:
A&B
Output:
B&A
Explanation: As we ignore '&' and
As we ignore '&' and then reverse, so answer is "B&A".

For example:

Input	Result
A&x#	
x&A#	

CODE:

```
s=list(input())
s2=""
for i in range(len(s)):
    if(s[i].isalpha()):
        s2=s2+s[i]
l=len(s2)-1
for i in range(len(s)):
    if(s[i].isalpha()):
        s[i]=s2[l]
        l-=1
for i in s:
    print(i,end="")
```

Ex. No. : 6.8 **Date:**

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String characters balance Test

Write a program to check if two strings are balanced. For example, strings s1 and s2 are balanced if all the characters in the s1 are present in s2. The character's position doesn't matter. If balanced display as "true" ,otherwise "false".
For example:

Input	Result
Yn	
PYnative	
True	

CODE:

```
s1=input()
s2=input()
for i in s1:
   if i in s2:
      flag=1
   else:
      flag=0
      break
print(flag==1)
```

Ex. No. : 6.9 **Date:**

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WORDS OF MINNIMUM LENGTH

Given a string S, which contains several words, print the count C of the words whose length is atleast L. (You can include punctuation marks like comma, full stop also as part of the word length. Space alone must be ignored)

Input Format:

The first line contains S.
The second line contains L.

Output Format:

The first line contains C

Boundary Conditions:

2 <= Length of S <= 1000

Example Input/Output 1:

Input:

During and after Kenyattas inauguration police elsewhere in the capital, Nairobi, tried to stop the opposition from holding peaceful demonstrations.
5

Output:

13

Explanation:

The words of minimum length 5 are
During
after
Kenyattas
inauguration
police
elsewhere
capital,
Nairobi,
tried
opposition
holding

peaceful
demonstrations.

CODE:

```
n=list(input().split())
m=int(input())
co=0
for i in n:
    if("," not in i and "." not in i):
      if(len(i)>=m):
        co+=1
    else:
      if(len(i)>m):
          co+=1
print(co)
```

Ex. No. : 6.10 **Date:**

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FIND IF SUBSTRING

Find if a String2 is substring of String1. If it is, return the index of the first occurrence. else return -1.

Sample Input 1

thistest123string

123

Sample Output 1

8

Find if a String2 is substring of String1. If it is, return the index of the first occurrence. else return -1.

Sample Input 1

thistest123string

123

Sample Output 1

8

CODE:

```
s1=input()
s2=input()
i=0
if s2 in s1:
   while(s2[0]!=s1[i]):
      i+=1
if(i<len(s1)):
   print(i)
else:
   print(-1)
```