Started on	Friday, 28 March 2025, 3:22 PM
State	Finished
Completed on	Friday, 28 March 2025, 4:03 PM
Time taken	40 mins 12 secs
Marks	4.00/5.00
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Task

You are given a string S.
Your task is to find out if the string S contains: *alphanumeric characters, alphabetical characters, digits, lowercase and uppercase characters*.

Input Format

A single line containing a string S.

Constraints

$0 < len(S) < 1000$

Output Format

In the first line, print True if S has any *alphanumeric characters*. Otherwise, print False.
In the second line, print True if S has any *alphabetical characters*. Otherwise, print False.
In the third line, print True if S has any *digits*. Otherwise, print False.
In the fourth line, print True if S has any *lowercase characters*. Otherwise, print False.
In the fifth line, print True if S has any *uppercase characters*. Otherwise, print False.

For example:

Input	Result
qA2	True True True True True

Answer: (penalty regime: 0 %)

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Falling back to raw text area.

```
n=input()
alnum=False
alph=False
digit=False
lower=False
upper=False
for i in n:
    alnum=alnum or i.isdigit()
    alph=alph or i.isupper()
    digit=digit or i.isdigit()
    lower=lower or i.islower()
    upper=upper or i.isupper()
print(alnum)
print(alph)
print(digit)
print(lower)
print(upper)
```

	Input	Expected	Got	
✔	qA2	True True True True True	True True True True True	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Vimla purchased a microwave oven with the price Rs. 25,000. Write a python program to find the amount paid by Vimla, If 5% discount was given and 2% CST was paid.

Finalamount = amount +cst_amount - discount_amount

Answer: (penalty regime: 0 %)

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Falling back to raw text area.

```
amount=25000
cst=25000*(2/100)
discount=25000*(5/100)
finalamnt=amount+cst-discount
print(finalamnt)
```

	Expected	Got	
✔	24250.0	24250.0	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

A newly opened multinational brand has decided to base their company logo on the three most common characters in the company name. They are now trying out various combinations of company names and logos based on this condition. Given a string s, which is the company name in lowercase letters, your task is to find the top three most common characters in the string.

- Print the three most common characters along with their occurrence count.
- Sort in descending order of occurrence count.
- If the occurrence count is the same, sort the characters in alphabetical order.

For example, according to the conditions described above,

GOOGLE would have it's logo with the letters G, O, E.

Input Format

A single line of input containing the string S.

Constraints

- $3 < len(S) \leq 10^4$
- S has at least 3 distinct characters

Output Format

Print the three most common characters along with their occurrence count each on a separate line.
Sort output in descending order of occurrence count.
If the occurrence count is the same, sort the characters in alphabetical order.

Sample Input 0

```
aabbbccde
```

Sample Output 0

```
b 3
a 2
c 2
```

Explanation 0

aabbbccde

Here, *b* occurs 3 times. It is printed first.
Both *a* and *c* occur 2 times. So, *a* is printed in the second line and *c* in the third line because *a* comes before *c* in the alphabet.

Note: The string S has at least 3 distinct characters.

For example:

Input	Result
aabbbccde	b 3 a 2 c 2

Answer: (penalty regime: 0 %)

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Falling back to raw text area.

```
n=input()
d={}
for i in n:
    if i in d:
        d[i]+=1
    else:
        d[i]=1
d=sorted(d.items(),key=lambda d:d[1],reverse=True)
for t in d:
    if t[1]>=2:
        print(t[0],t[1])
```

	Input	Expected	Got	
✔	aabbbccde	b 3 a 2 c 2	b 3 a 2 c 2	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Incorrect

Mark 0.00 out of 1.00

Write a Python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9).

For example:

Input	Result
saveetha12!@	False

Answer: (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?
Falling back to raw text area.

```
n=input()
if n==('[a-z]'):
    print("True")
else:
    print("False")
```

	Input	Expected	Got	
✔	saveetha12!@	False	False	✔
✖	saveetha	True	False	✖

Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect

Marks for this submission: 0.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Let's dive into the interesting topic of regular expressions! You are given some input, and you are required to check whether they are valid mobile numbers.

A valid mobile number is a ten digit number starting with a $7, 8$ or 9.

Concept

A valid mobile number is a ten digit number starting with a $7, 8$ or 9.

Regular expressions are a key concept in any programming language. A quick explanation with Python examples is available here. You could also go through the link below to read more about regular expressions in Python.

Input Format

The first line contains an integer N, the number of inputs.
N lines follow, each containing some string.

Constraints

$1 \leq N \leq 10$

$2 \leq len(Number) \leq 15$

Output Format

For every string listed, print "*YES*" if it is a valid mobile number and "*NO*" if it is not on separate lines. Do not print the quotes.

For example:

Input	Result
2 9587456281 1252478965	YES NO

Answer: (penalty regime: 0 %)

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Falling back to raw text area.

```
import re
n=int(input())
for i in range(n):
    number=input()
    pattern='[789]\d{9}$'
    matched=re.match(pattern,number)
    if matched:
        print('YES')
    else:
        print('NO')
```

	Input	Expected	Got	
✔	2 9587456281 1252478965	YES NO	YES NO	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.