Logo

STUDENT REPORT

DETAILS

Name

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EXPERIMENT

Title

FIND THE ODD ONE OUT

Description

You have N strings and the characters of each string follow a pattern. Out of these N strings, N-1 strings will have characters following the same pattern and there will be a string that is odd according to the rest N-1 strings. Find and print that one odd string. For example, we have "ACB, BDC, CED, DEF". In this, we can observe that in ACB, BDC, CED all the strings follow a specific pattern:

-> The first character is the letter of the English alphabet with the ASCII value suppose x.

-> Then the second character is the letter with the ASCII value x+2.

-> Then the third character is the letter with the ASCII value x+1.

But, DEF does not have this pattern and hence it is the "Odd String"

Note:

All the sequences are related to the english alphabet only. Also, the element's length can vary, and there is only one odd string in the sequence.

Input Format:

The input is in the following format:

The first line contains an integer, I.e. N.

Each of the next N lines contains a string.

Example:

Sample Input:

3

ABD
CEF
DFG

Sample Output:

ABD

Source Code:

```
n=int(input())
s=[]
pattern=[]
for _ in range(n):
    s.append(input().strip())
def get_pat(st):
    p=[]
    for i in range(1,len(st)):
        p.append(ord(st[i])-ord(st[i-1]))
    return p
for st in s:
    pattern.append(get_pat(st))
d={}
for i in range(n):
    t=tuple(pattern[i])
    if t in d:
        d[t].append(i)
    else:
        d[t]=[i]
if len(d)==2:
    for key,val in d.items():
        if len(val)==1:
            odd=val[0]
            print(s[odd])
            break
else:
    mx=0
    od=0
    for key,val in d.items():
        if len(val)>mx:
            mx=len(val)
        else:
            od=val[0]
    print(s[od])
```

RESULT

5 / 5 Test Cases Passed | 100 %