Rajalakshmi Engineering College

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NeoColab_REC_CS23221_Python Programming

REC_Python_Week 3_CY

Attempt : 1
Total Mark : 30
Marks Obtained : 30

Section 1 : Coding

1. Problem Statement

Write a program to check if a given string is perfect.

A perfect string must satisfy the following conditions:

The string starts with a consonant.The string alternates between consonants and vowels.Each consonant appears exactly once.Vowels can occur consecutively multiple times but should not be followed immediately by a consonant.

If the string satisfies all these conditions, print “True”; otherwise, print “False”.

Input Format

The input consists of a string.

Output Format

The output prints "True" if the string is perfect. Otherwise, print "False".

Refer to the sample output for formatting specifications.

Sample Test Case

Input: capacitor

Output: True

Answer

```
# You are using Python
def isperfect(s):
    vowels = set('aeiou')
    usedconsonants=set()

    if s[0] in vowels:
        return False
    prevcons=False
    for ch in s:
        if ch in vowels:
            prevcons=False
        else:
            if ch in usedconsonants:
                return False
            if prevcons:
                return False
            usedconsonants.add(ch)
            prevcons=True
    return True

s=input().strip()
print("True" if isperfect(s) else "False")
```

Status : Correct ***Marks : 10/10***

2. Problem Statement

Sarah is a technical writer who is responsible for formatting two important documents. Both documents contain a certain placeholder character that needs to be replaced with another character before they can be finalized. To ensure consistency in formatting, Sarah wants you to help her write a program that processes both documents by replacing the placeholder character with the new one.

Sarah also prefers a neat and structured output, so she wants you to ensure that both modified documents are printed in a single line, separated by a space, using the format() function.

Example

Input:

Hello

World

o

a

Output:

Hella Warld

Explanation:

Here the character 'o' is replaced with 'a' in the concatenated string.

Input Format

The first line contains string1, the first document.

The second line contains string2, the second document.

The third line contains char1, the placeholder character that needs to be replaced.

The fourth line contains char2, the new character that will replace the placeholder.

Output Format

The output displays a single line containing the modified string1 and string2, separated by a space.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: Hello
World
o
a
Output: Hella Warld

Answer

```
# You are using Python
a=input()
b=input()
c=input()
d=input()
e=a+' '+b
f=e.replace(c,d)
print(f)
```

Status : Correct ***Marks : 10/10***

3. Problem Statement

Raj wants to write a program that takes a list of strings as input and returns the longest word in the list. If there are multiple words with the same length, the program should return the first one encountered.

Help Raj in his task.

Input Format

The input consists of a single line of space-separated strings.

Output Format

The output prints a string representing the longest word in the given list.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: cat dog elephant lion tiger giraffe
Output: elephant

Answer

```
# You are using Python
ani=input().split()
max=''
for i in ani:
    # print(len(i))
    if(len(i)>len(max)):
        max=i
print(max)
```

Status : Correct ***Marks : 10/10***