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

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
s1 = input()
s2 = input()
c1 = input()
c2 = input()
print("{} {}".format(s1.replace(c1, c2), s2.replace(c1, c2)))
```

Status : Correct   *Marks : 10/10*

2.   Problem Statement

You have two strings str1 and str2, both of equal length.

Write a Python program to concatenate the two strings such that the first
character of str1 is followed by the first character of str2, the second
character of str1 is followed by the second character of str2, and so on.

For example, if str1 is "abc" and str2 is "def", the output should be "adbecf".

Input Format

The input consists of two strings in each line.

Output Format

The output displays the concatenated string in the mentioned format.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: abc
def
Output: adbecf

Answer

```
# You are using Python
str1 = input()
str2 = input()
```

```
result = ''.join(a + b for a, b in zip(str1, str2))
print(result)
```

Status : Correct   *Marks : 10/10*

3. 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

```python
# You are using Python
s = input()
vowels = 'aeiou'
consonants_seen = set()
n = len(s)
```

```python
    if s[0] in vowels:
        print("False")
    else:
        i = 0
        expect_consonant = True
        valid = True
        while i < n:
            ch = s[i]
            if expect_consonant:
                if ch in vowels or ch in consonants_seen:
                    valid = False
                    break
                consonants_seen.add(ch)
                expect_consonant = False
                i += 1
            else:
                if ch not in vowels:
                    valid = False
                    break
                while i < n and s[i] in vowels:
                    i += 1
                if i < n and s[i] not in vowels:
                    expect_consonant = True
        print("True" if valid else "False")
```

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