Rajalakshmi Engineering College

Name: Afrin N

Email: 240701022@rajalakshmi.edu.in

Roll no: Phone: null Branch: REC

Department: I CSE FA

Batch: 2028

Degree: B.E - CSE



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 is_perfect_string(s):
  vowels={'a','e','i','o','u'}
  consonants_seen=set()
  if not s or s[0] in vowels:
    return "False"
  i=0
  while i<len(s):
    if s[i] not in vowels:
       if s[i] in consonants_seen:
       return "False"
    consonants_seen.add(s[i])
    i+=1
    if i<len(s) and s[i] not in vowels:
       return "False"
     else:
       while i<len(s) and s[i] in vowels:
         i+=1
       if i<len(s) and s[i] in vowels:
         return "True"
  return "True"
s=input().strip()
print(is_perfect_string(s))
```

Status: Correct Marks: 10/10

2. Problem Statement

A company is creating email accounts for its new employees. They want to use a naming convention for email addresses that consists of the first letter of the employee's first name, followed by their last name, followed by @company.com.

The company also has a separate email domain for administrative employees.

Write a program that prompts the user for their first name, last name, role, and company and then generates their email address using the appropriate naming convention based on their role. This is demonstrated in the below examples.

Note:

The generated email address should consist of the first letter of the first name, the last name in lowercase, and a suffix based on the role and company, all in lowercase.

Input Format

The first line of input consists of the first name of an employee as a string.

The second line consists of the last name of an employee as a string.

The third line consists of the role of the employee as a string.

The last line consists of the company name as a string.

Output Format

The output consists of a single line containing the generated email address for the employee, following the specified naming convention. Refer to the sample output for the formatting specifications.

Sample Test Case

```
Input: John
Smith
admin
iamNeo
```

Output: jsmith@admin.iamneo.com

Answer

```
# You are using Python
f=input()
l=input()
r=input()
c=input()
if(r=="admin"):
    print(f"{f[0]}{I}@{r}.{c}.com")
else:
    print(f"{f[0]}{I}@{c}.com")
```

Status: Correct Marks: 10/10

3. 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().strip()

str2=input().strip()

result=""

for i in range(len(str1)):

    result+=str1[i]

    result+=str2[i]

print(result)
```

Status: Correct Marks: 10/10