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

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

```
word=input().split()
longword=word[0]
for x in word:
    if (len(x) > len(longword)):
        longword=x
print(longword)
```

Status : Correct   *Marks : 10/10*

2. 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
def perfect_string(s):
    vowels={'a','e','i','o','u'}
    consonants={chr(i) for i in range(ord('a'),ord('z') + 1)} - vowels
    if not s or s[0] not in consonants:
        return False
    seen_consonants=set()
    prev_char_type='consonant'
    for i in range(1,len(s)):
        char = s[i]
        if char in consonants:
            if char in seen_consonants:
                return False
            seen_consonants.add(char)
            if prev_char_type=='consonant':
                return False
            prev_char_type='consonant'
        elif char in vowels:
            if prev_char_type =='vowel':
                continue
            prev_char_type='vowel'
        else:
            return False
    return True
s=input().strip().lower()
if (perfect_string(s)):
    print("True")
else:
    print("False")
```

Status : Correct   *Marks : 10/10*

3. 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

```
first=input().strip().lower()
last=input().strip().lower()
role=input().strip().lower()
company=input().strip().lower()
if role=='admin':
    print(f"{first[0]}{last}@{role}.{company}.com")
else:
    print(f"{first[0]}{last}@{company}.com")
```

Status : Correct   *Marks : 10/10*