

# Rajalakshmi Engineering College

Name: Nikhilesh D  
Email: 240701360@rajalakshmi.edu.in  
Roll no: 240701360  
Phone: 9940617256  
Branch: REC  
Department: I CSE FD  
Batch: 2028  
Degree: B.E - CSE

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## NeoColab\_REC\_CS23221\_Python Programming

### REC\_Python\_Week 3\_CY

Attempt : 1  
Total Mark : 30  
Marks Obtained : 29

### 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
s=input()
v="aeiou"
cs=set()
if s[0] in v:
    print("False")
else:
    i=0
    while i< len(s):
        c=s[i]
        if c in v:
            while i< len(s) and s[i] in v:
                i+=1
            else:
                if c in cs:
                    print("False")
                    break
                cs.add(c)
                if i+1 < len(s) and s[i+1] not in v:
                    print("Fale")
                    break

            i+=1
        else:
            print("True")
```

**Status :** Partially correct

**Marks :** 9/10

## 2. Problem Statement

Raja needs a program that helps him manage his shopping list efficiently. The program should allow him to perform the following operations:

**Add Items:** Raja should be able to add multiple items to his shopping list at once. He will input a space-separated list of items, each item being a string.

**Remove Item:** Raja should be able to remove a specific item from his shopping list. He will input the item he wants to remove, and if it exists in the list, it will be removed. If the item is not found, the program should notify him.

**Update List:** Raja might realize he forgot to add some items initially. After removing unnecessary items, he should be able to update his list by adding more items. Similar to the initial input, he will provide a space-separated list of new items.

### ***Input Format***

The first line consists of the initial list of integers should be entered as space-separated values.

The second line consists of the element to be removed should be entered as a single integer value.

The third line consists of the new elements to be appended should be entered as space-separated values.

### ***Output Format***

The output displays the current state of Raja's shopping list after each operation. After adding items, removing items, and updating the list, the program prints the updated shopping list in the following format:

"List1: [element1, element2, ... ,element\_n]"

List after removal: [element1, element2, ... ,element\_n]"

Final list: [element1, element2,...,element\_n]".

If the item is not found in the removing item process, print the message "Element not found in the list".

Refer to the sample output for the formatting specifications.

### **Sample Test Case**

Input: 1 2 3 4 5

3

6 7 8

Output: List1: [1, 2, 3, 4, 5]

List after removal: [1, 2, 4, 5]

Final list: [1, 2, 4, 5, 6, 7, 8]

### **Answer**

```
# You are using Python
sl=list(map(int, input().split()))
itr=int(input())
ni=list(map(int, input().split()))
print("List1:", sl)
if itr in sl:
    sl.remove(itr)
    print("List after removal:", sl)
else:
    print("Element not found in the list")
sl.extend(ni)
print("Final list:", sl)
```

**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()
```

```
str2=input()
```

```
res=""
```

```
for i in range(len(str1)):
```

```
    res+=str1[i] + str2[i]
```

```
print(res)
```

**Status :** Correct

**Marks :** 10/10