

```
#RamanR
#ACSL Contest 2 2019 - 2020
#Junior Division
#String Differences
```

```
def rule_1(word):
    new_word = word[0]
    for i in range(1, len(word)):
        char1 = word[i]
        char2 = new_word[len(new_word) - 1]
        if char1 != char2:
            new_word = new_word + char1
    return new_word
```

```
#Delete all vowels (A, E, I, O, U) unless the vowel is the first character in the string.
```

```
def rule_2(word):
    vowels = ["A", "E", "I", "O", "U"]
    new_word = word[0]
    for i in range(1, len(word)):
        char = word[i]
        if char not in vowels:
            new_word = new_word + char
    return new_word
```

```
#Then delete all like characters at like positions
```

```
def rule_3(word1 , word2):
    word1_1 = ''
    word2_1 = ''

    i = 0

    while i < len(word1) and i < len(word2):
        if word1[i] != word2[i]:
            word1_1 = word1_1 + word1[i]
            word2_1 = word2_1 + word2[i]
            i = i + 1

    if i < len(word1):
        for j in range(i, len(word1)):
            word1_1 = word1_1 + word1[j]

    if i < len(word2):
        for j in range(i, len(word2)):
            word2_1 = word2_1 + word2[j]

    return word1_1, word2_1
```

```
def rule_4(word1 , word2):
    word1_1 = ''
    word2_1 = ''

    i = len(word1) - 1
    j = len(word2) - 1

    while i >= 0 and j >= 0:
        if word1[i] != word2[j]:
            word1_1 = word1[i] + word1_1
            word2_1 = word2[j] + word2_1
            i = i - 1
            j = j - 1

    if i >= 0:
        for k in range(i, -1, -1):
            word1_1 = word1[k] + word1_1

    if j >= 0:
        for k in range(j, -1, -1):
```

```
word2_1 = word2[j] + word2_1
```

```
return word1_1, word2_1
```

```
# main programm
```

```
str1 = input("Enter the first word: ")
```

```
str2 = input("Enter the second value: ")
```

```
str1_1 = rule_1(str1)
```

```
str2_1 = rule_1(str2)
```

```
print('After rule1 -> {}, {}'.format(str1_1, str2_1))
```

```
str1_2 = rule_2(str1_1)
```

```
str2_2 = rule_2(str2_1)
```

```
print('After rule2 -> {}, {}'.format(str1_2, str2_2))
```

```
str1_3, str2_3 = rule_3(str1_2, str2_2)
```

```
print('After rule3 -> {}, {}'.format(str1_3, str2_3))
```

```
str1_4, str2_4 = rule_4(str1_3, str2_3)
```

```
print('After rule4 -> {}, {}'.format(str1_4, str2_4))
```

```
if len(str1_4) < len(str2_4):
```

```
    print(str1_4)
```

```
else:
```

```
    print(str2_4)
```