

NOI Game

locked

Mr. Ian is a past contestant of NOI and he has an interest in playing games with the letters 'n', 'o' and 'i'. Initially his friend Ms.Nio gives him a random string(text) which only contains the letters 'n', 'o' and 'i'. Then he performs the following operations on the string

1. Find an even substring that only contains one character type('n'/'o'/'i')
2. Removes it from the original string to make a new string
3. Continue step 1 with the new string until there are no even substrings of same character type('n'/'o'/'i') or the resulting string is empty

After all the operations Mr. Ian comes up with the resulting string. Having a programming background Mr. Ian wishes to make his task easy by using a program. Your task is to help Ian find the resulting string after following the above operations

Input Format

One line containing a string of length N that has only lowercase characters 'n', 'o' and 'i'

Constraints

$5 \leq N \leq 100\,000$

Limits

- Time Limit: 1s
- Memory Limit: 256MB

Output Format

A single line containing the resulting string If the resulting string is empty print -1

Sample Input 0

```
nonooni
```

Sample Output 0

```
noi
```

Sample Input 1

```
noooiion
```

Sample Output 1

```
-1
```

Explanation 1

- First ii are removed
- Then the string is nooon
- Then oooo is removed
- Now resulting string is nn
- Finally nn is removed

Sample Input 2

```
nnooinnnnnoiooiin
```

Sample Output 2

```
ioi
```