All Contests > HourRank 30 > Video Conference

Video Conference 🔒
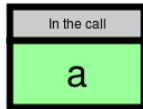
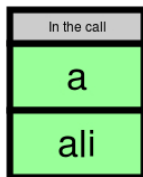Problem | Submissions | Leaderboard | Discussions | Editorial 🔒

Bob is making a video conference software. Whenever a new person joins the conference, Bob displays the person's name in the interface.

However, displaying full name is tedious and takes much space. So he decided to display the shortest prefix which doesn't match with any prefix of any person who has joined earlier.

Let's suppose the first person to enter the conference is alvin.

Now suppose next person to join is alice. The shortest prefix of alice that doesn't match with any prefix of alvin is ali.

If the full name of a new person matches completely with the full name of any person who has joined earlier, he will display the full name and add a suffix which indicates how many times the same name has occurred in the list so far. For example, if another person name alvin joins, the list will look like this:

You are given the list of the persons who have joined the call in the chronological order. Your task is to figure out how the final list looks like.

Input Format

The first line contains an integer n.

The subsequent n line contains a string s_i denoting the name of the ith person to join the call.

Constraints

- $1 \leq n \leq 10^5$
- $1 \leq s_i \leq 10$
- s_i will contain only lower-case english letters.

Subtask

- $1 \leq n \leq 1000$ for 60% of the maximum score

Output Format

Return a string array with n items, the ith line should contain the prefix of name of the ith person which doesn't match with any other person who has joined earlier.

Sample Input 0

```
3
alvin
alice
alvin
```

Author   Shafaet
Difficulty   Easy
Max Score   15
Submitted By   994

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Sample Output 0

```
a
ali
alvin 2
```

Sample Input 1

```
6
mary
stacy
sam
samuel
sam
miguel
```

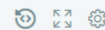**Sample Output 1**

```
m
s
sa
samu
sam 2
mi
```

Change Theme | Java 7

```java
1    import java.io.*;
2    import java.math.*;
3    import java.security.*;
4    import java.text.*;
5    import java.util.*;
6    import java.util.concurrent.*;
7    import java.util.regex.*;
8
9    class Result {
10
11       /*
12        * Complete the 'solve' function below.
13        *
14        * The function is expected to return a STRING_ARRAY.
15        * The function accepts STRING_ARRAY names as parameter.
16        */
17
18       public static List<String> solve(List<String> names) {
19       // Write your code here
20
21       }
22
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input

Run Code   **Submit Code**