Problem G
The Word Puzzle

In this word puzzle, you are given several English words. Your job is to 'link' these words together. The rule is very simple. Initially, you choose an arbitrary word as the starting point. Then, you can extend it by attaching another word in the end as long as the first letter of this word is identical to the last letter of the previous word. Two consecutive words overlap exactly one letter for the sake that you need to tight them together. In addition, each word can only be used exactly once. For example, suppose we have four words: `eagle, apple, eat, tree`. One way to connect them is in this order `apple, eat, tree, eagle`. In this case, the result is `appleatreeeagle`. Another way to connect them is in this order `apple, eagle, eat, tree`, and the result is `appleagleatree`. Due to some unknown reason, the correct answer is the one whose lexicographic order is the smallest if it is possible to link them altogether. In our example, the first resultant string `appleatreeeagle` is larger than the second string `appleagleatree`, because at the seventh position the first one has letter 't' and the second one has letter 'g', and 't' is larger than 'g'. Therefore, the first string should be dropped. In fact, the second string is the correct answer in this case.

Technical Specification

1. There are only lowercase English letters in the words.
2. Each word has at least 2 characters and at most 20 characters.
3. The total number of words is at least 1 and at most 10^5.

Input Format

The first line contains an integer m ($m \leq 20$) denoting the number of test cases. For each test case, the first line contains a single integer w ($1 \leq w \leq 10^5$) denoting the total number of words in this test case. In the next w lines, each line contains exactly one word of this test case.

Output Format

For each test case, output lexicographically the smallest linked word, or output `IMPOSSIBLE` is the given words cannot be linked.

Sample Input

```
3
3
eve
eagle
age
4
```

```
ago
oh
home
ema
2
ago
dig
```

Sample Output for the Sample Input

```
ageagleve
agohomema
IMPOSSIBLE
```