New Alphabet

Sinf got tired of guessing numbers, so Ni issued a challange:

There is no known reason for the order of the Latin alphabet, can you came up with a new lexicographical order such that these words are ordered alphabetically.

Lexicographical order is defined in following way. When we compare s and t, first we find the leftmost position with differing characters: si ≠ ti. If there is no such position (i. e. s is a prefix of t or vice versa) the shortest string is less. Otherwise, we compare characters si and ti according to their order in alphabet.

Input Format

The first line contains the number of names (N).

Each of the following N lines contains one string. Each of these contains only lowercase Latin letters.

Constraints

1 <= N <= 100 1 <= Ni <= 100 (Ni is the length of a string)

Output Format

If there exists such order of letters that the given names are sorted lexicographically, output any such order as a permutation of characters 'a'–'z' (i. e. first output the first letter of the modified alphabet, then the second, and so on).

Otherwise output a single word "Impossible" (without quotes).

Sample Input 0

```
3
rivest
shamir
adleman
```

Sample Output 0

```
bcdefghijklmnopqrsatuvwxyz
```

Sample Input 1

```
3
mwfsecmtreiarkijgznhuvrjh
zlrpjexxemwfvmirjtujeslybnpnpvtpxfkmdwhjdejxfdklfuvvdxxqqzrolqjtthapdiqoufpiqmlchbrdlosnhrlstkh
tznzxhnqunbhnimydqliswhxbtlwwxqhfxwfrfacabixaqqdaijjdplrevyjvscsyty
```

Sample Output 1

```
abcdefghijklmnopqrsuvwxyzt
```