By now, you are given a **secret signature** consisting of character 'D' and 'I'. 'D' represents a decreasing relationship between two numbers, 'I' represents an increasing relationship between two numbers. And our **secret signature** was constructed by a special integer array, which contains uniquely all the different number from 1 to n (n is the length of the secret signature plus 1). For example, the secret signature "DI" can be constructed by array [2,1,3] or [3,1,2], but won't be constructed by array [3,2,4] or [2,1,3,4], which are both illegal constructing special string that can't represent the "DI" **secret signature**.

On the other hand, now your job is to find the lexicographically smallest permutation of [1, 2, ... n] could refer to the given **secret signature** in the input.

**Example 1:**

**Input:** "I"

**Output:** [1,2]

**Explanation:** [1,2] is the only legal initial spectial string can construct secret signature "I", where the number 1 and 2 construct an increasing relationship.

**Example 2:**

**Input:** "DI"

**Output:** [2,1,3]

**Explanation:** Both [2,1,3] and [3,1,2] can construct the secret signature "DI",   
but since we want to find the one with the smallest lexicographical permutation, you need to output [2,1,3]

**Note:**

 The input string will only contain the character 'D' and 'I'.

 The length of input string is a positive integer and will not exceed 10,000