942. DI String Match

Description

A permutation `perm` of `n + 1` integers of all the integers in the range `[0, n]` can be represented as a string `s` of length `n` where:

- `s[i] == 'I'` if `perm[i] < perm[i + 1]`, and
- `s[i] == 'D'` if `perm[i] > perm[i + 1]`.

Given a string `s`, reconstruct the permutation `perm` and return it. If there are multiple valid permutations perm, return **any of them**.

Example 1:

```
Input:  s = "IDID"
Output:  [0,4,1,3,2]
```

Example 2:

```
Input:  s = "III"
Output:  [0,1,2,3]
```

Example 3:

```
Input:  s = "DDI"
Output:  [3,2,0,1]
```

Constraints:

- $1 <= s.length <= 10^5$
- `s[i]` is either `'I'` or `'D'`.