D - Logical Filling

Editorial (/contests/abc401/tasks/abc401_d/editorial)

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Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 400 points

Problem Statement

You are given a string S of length N consisting of the characters `.`, `o`, and `?`. Among the strings that can be obtained by replacing every `?` in S independently with either `.` or `o`, let X be the set of strings that satisfy all of the following conditions:

- The number of `o`s is exactly K.
- No two `o`s are adjacent.

It is guaranteed that X is non-empty.

Print a string T of length N that satisfies the following (let T_i denote the i-th character of T):

- If the i-th character of every string in X is `.`, then $T_i =$ `.`.
- If the i-th character of every string in X is `o`, then $T_i =$ `o`.
- If X contains both a string whose i-th character is `.` and a string whose i-th character is `o`, then $T_i =$ `?`.

Constraints

- $1 \leq N \leq 2 \times 10^5$
- $0 \leq K$
- S is a string of length N consisting of `.`, `o`, `?`.

- X is non-empty.
- All given numerical values are integers.

Input

The input is given from Standard Input in the following format:

```
N K
S
```

Output

Print the answer.

Sample Input 1 Copy

```
4 2
o???
```

Sample Output 1 Copy

```
o.??
```

The set X consists of the two strings `o.o.` and `o..o`.

- The 1st character of every string in X is `o`, so T_1 is `o`.
- The 2nd character of every string in X is `.`, so T_2 is `.`.
- The 3rd character of a string in X can be either `.` or `o`, so T_3 is `?`.

Sample Input 2 Copy

```
5 2
?????
```

Sample Output 2 Copy

```
?????
```

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Sample Input 3 Copy

```
7 3
.o???o.
```

Sample Output 3 Copy

```
.o.o.o.
```

#telegram)

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