

ABC Legacy

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

You are given a string S of length $2n$, consisting of the characters **A**, **B** and **C**. Determine if S can be split into n non-intersecting subsequences, each of which forms one of the strings “**AB**”, “**AC**”, “**BC**”. If it is possible, find such a splitting.

Input

The first line of input contains one integer n ($1 \leq n \leq 10^5$).

The second line of input contains a string S of length $2n$, consisting of the characters **A**, **B** and **C**.

Output

If the splitting is not possible, print “**NO**” (without quotes).

If the splitting is possible, print “**YES**” (without quotes), followed by n lines, each describing two indices for the i -th subsequence ($1 \leq l_i < r_i \leq 2n$).

Examples

standard input	standard output
3 BABBC	YES 3 5 1 6 2 4
2 CBAC	NO
1 AA	NO
3 ABCACB	YES 2 3 4 6 1 5