Problem J. 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 BABBCC	YES 3 5 1 6 2 4
2 CBAC	NO
1 AA	NO
3 ABCACB	YES 2 3 4 6 1 5