

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

## F. Semi Palindrome

time limit per test: 2 seconds  
memory limit per test: 256 megabytes

Abdelaleem, while working on his problem set, has exhausted all his ideas and couldn't come up with more problems. Consequently, he is seeking help from his friend Salah. However, Salah insists that his problems are typically somewhat difficult and may not suit the community's level. Despite this, Abdelaleem tries to convince him that the community at Shorouk Academy is improving and has some talented individuals. Thus, he challenges Salah that there are people who can solve his problems. Salah, wishing for the improvement of the community's skill level, agrees not to propose a difficult problem and suggests a moderately challenging one instead.

The proposed problem is as follows:

You are given a string  $s$  consisting of lowercase English letters with size  $n$ . Additionally, there are some queries on this string:

- $i, c$  ( $1 \leq i \leq n$ ) - You are asked to change the  $i$ -th character in the string  $s$  to  $c$ .
- $l, r$  ( $1 \leq l \leq r \leq n$ ) - You are given a range and asked if it is possible to change **at most one** character within this range to make it a palindrome. If you can achieve this, print "YES"; otherwise, print "NO".

Can you solve this problem, or will it lead to Abdelaleem's frustration and Salah's mockery?

### Input

The first line contains integer  $T$  the number of test cases.

For each test case:

The first line of each test case contains the integer  $n$  ( $1 \leq n \leq 10^5$ ).

The second line contains a string  $s$  with lowercase English letters.

The third line contains  $q$  ( $1 \leq q \leq 10^5$ ).

Then  $q$  lines each line one of two types of queries:

- $i, c$  ( $1 \leq i \leq n$ ) - You are asked to change the  $i$ -th character in the string  $s$  to  $c$ .
- $l, r$  ( $1 \leq l \leq r \leq n$ ) - You are given a range and asked if it is possible to change **at most one** character within this range to make it a palindrome.

### Output

For each test case output for each type 2 query "YES" or "NO".

You can output each letter in any case (lowercase or uppercase). For example, the strings "yEs", "yes", "Yes", and "YES" will be accepted as positive answers.

### Examples

input	Copy
1 10 madamrasha 7 2 1 5 2 4 7 1 6 a 2 6 10 2 3 6 1 2 s 2 2 8	
output	Copy
YES YES YES NO YES	

input	Copy
1 6 zvaoqb 4 2 3 6 2 1 5 1 3 n 2 5 6	
output	Copy
NO NO YES	

### Shorouk Academy 2024 Collegiate Programming Contest

Finished

Practice



#### About Contest



#### Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

#### Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

#### Submit?

Language: GNU G++20 13.2 (64 bit, win)

Choose file: Choose File No file chosen

Submit

#### Last submissions

Submission	Time	Verdict
<a href="#">306867284</a>	Feb/19/2025 15:29	Accepted
<a href="#">306864997</a>	Feb/19/2025 15:08	Time limit exceeded on test 50
<a href="#">306863692</a>	Feb/19/2025 14:56	Accepted

#### Contest materials

- Announcement (en)
- statements (en)