

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

K. Know Your Statement

time limit per test: 2 seconds
memory limit per test: 512 megabytes

Lucas really wanted to create an interesting problem with strings, but he spent so much time thinking that ended up with no creativity to create a better statement for this problem.

The problem he came up with is the following:

Given and array v of strings, answer these queries:

- 1. $update(i, s)$ replace the i -th position in the array with the a string s .
- 2. $vprefix(l, r, s)$ check whether there is any string in sub-array $[l, r]$ which is a prefix of s .
- 3. $sprefix(l, r, s)$ check whether s is prefix of any string in sub-array $[l, r]$.

Input

In the first line of input there is an integer n ($1 \leq n \leq 10^5$) indicating the size of the array v . The following n lines display the contents of the array, where the $(i + 1)$ -th line is the string in i -th position in the array.

In the $(n + 2)$ -th line there is an integer q ($1 \leq q \leq 10^5$), the number of queries to be executed. The following q lines contain the description of the q queries, one per line.

Each query is described as follows:

- Type 1: 1 i s , where i is an integer ($1 \leq i \leq n$) and s is a string.
- Type 2: 2 l r s , where l and r are integers ($1 \leq l \leq r \leq n$) and s is a string.
- Type 3: 3 l r s , where l and r are integers ($1 \leq l \leq r \leq n$) e s is a string.

Output

For each query of type 2 and 3, print “Y” if the query's answer is true or “N” if it's false.

Example

input	Copy
3 aaa ab acc 10 2 1 3 abb 2 3 3 abb 2 1 1 aaa 3 1 3 a 3 1 3 ac 3 3 3 b 3 3 3 ac 3 1 3 e 1 1 eae 3 1 3 e	
output	Copy
Y N Y Y Y N Y N Y	

Note

- The sum of the lengths of the strings initially in the array does not exceed $5 * 10^5$
- The sum of the lengths of the strings in the queries does not exceed $5 * 10^5$
- All strings contain only lower case characters.
- String a is prefix of string b if: $\exists x \in \Sigma^* | ax = b$

UFPE Starters Final Try-Outs 2018

Finished

Practice

About Contest

UFPE freshmen try-outs, last step of selection for newcomers

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
283960360	Oct/02/2024 00:41	Accepted
283960135	Oct/02/2024 00:36	Wrong answer on test 1
283832194	Oct/01/2024 02:40	Accepted
283832169	Oct/01/2024 02:39	Accepted
283832125	Oct/01/2024 02:37	Accepted
283832070	Oct/01/2024 02:36	Accepted
283832039	Oct/01/2024 02:35	Wrong answer on test 7
283831963	Oct/01/2024 02:33	Wrong answer on test 11
283825239	Sep/30/2024 23:46	Accepted
283823204	Sep/30/2024 23:19	Wrong answer on test 7

Contest materials

Statements #1 (pt)

Statements #2 (en)