



HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP RAYAN 🛣

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 ($1 \le n \le 10^5$) 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 ($1 \le q \le 10^5$), the number of queries to be executed. The following q lines contain the description of the q queries, one per line.

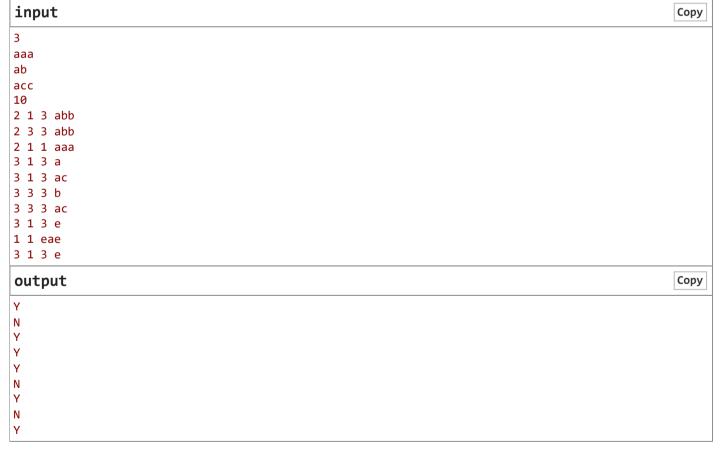
Each query is described as follows:

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



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



→ 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
<u>283831963</u>	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)