Problem I. Poem Online Judge

Time limit   2000 ms
Mem limit   1048576 kB

Problem Statement

Poem Online Judge (POJ) is an online judge that gives scores to submitted strings.
There were N submissions to POJ. In the i-th earliest submission, string S_i was submitted, and a score of T_i was given. (The same string may have been submitted multiple times.)
Note that POJ **may not necessarily give the same score to submissions with the same string**.

A submission is said to be an **original** submission if the string in the submission is never submitted in any earlier submission.
A submission is said to be the **best** submission if it is an original submission with the highest score. If there are multiple such submissions, only the earliest one is considered the best submission.

Find the index of the best submission.

Constraints

- $1 \leq N \leq 10^5$
- S_i is a string consisting of lowercase English characters.
- S_i has a length between 1 and 10, inclusive.
- $0 \leq T_i \leq 10^9$
- N and T_i are integers.

Input

Input is given from Standard Input in the following format:

```
N
S_1  T_1
S_2  T_2
⋮
S_N  T_N
```

Output

Print the answer.

Sample 1

Input	Output
3 aaa 10 bbb 20 aaa 30	2

We will refer to the i-th earliest submission as Submission i.

Original submissions are Submissions 1 and 2. Submission 3 is not original because it has the same string as that in Submission 1.

Among the original submissions, Submission 2 has the highest score. Therefore, this is the best submission.

Sample 2

Input	Output
5 aaa 9 bbb 10 ccc 10 ddd 10 bbb 11	2

Original submissions are Submissions 1, 2, 3, and 4.

Among them, Submissions 2, 3, and 4 have the highest scores. In this case, the earliest submission among them, Submission 2, is the best.

As in this sample, beware that if multiple original submissions have the highest scores, only the one with the earliest among them is considered the best submission.

Sample 3

Input	Output
10 bb 3 ba 1 aa 4 bb 1 ba 5 aa 9 aa 2 ab 6 bb 5 ab 3	8