World of Stability

Try implementing all the sorting techniques you know and analyse how many of them will work in this question.

Coronavirus has made the world unstable. We need your help to bring it to stability.

Many people applied for vaccinations at different hospitals. Each person was given a token number at their respective hospital.

Unfortunately, due to some unforeseen circumstances, all hospitals except one were shut down.

All people from other hospitals reached this emergency hospital.

You are given the details of N people, their token numbers and their name, in the order they reached the emergency hospital.

You want to tell the order at which they should get the vaccine, which is determined by their token numbers, the person with token number 1 should get the vaccine first.

In case there are multiple applicants with the same token number, the vaccine will be given on the first come first served basis.

Submit solution

All submissions
Best submissions

Points: 20
Time limit: 1.0s
Memory limit: 256M

Authors:
dhruv_sharma, dixitgarg

Allowed languages
C

Input

First line contains a single integer N ($1 \le N \le 10^5$), denoting the number of applicants.

Followed by N lines, each line contains an integer A_i ($1 \le A_i \le 10^9$) and a string S ($1 \le |S| \le 20$) containing lowercase english letters, denoting the token number and their names respectively.

Output

Print N lines, each containing the token number and the name of the applicant in the order they should be given the vaccine.

Example

Input

```
6
3 alice
2 bob
1 jake
2 berta
3 charlie
4 alan
```

Output

```
1 jake
2 bob
2 berta
3 alice
3 charlie
4 alan
```

Description

Jake gets the vaccine first as he has the least token number, followed by bob, as even though berta and bob have the same token number, bob arrives first and hence bob will be given vaccine prior to berta and so on.

Clarifications

Request clarification

No clarifications have been made at this time.

Assignment 4 - 3 days 00:25:16