

Patrick's To-Do List

Time Limit: 1s

Memory Limit: 256 MB



Description

It's a new day! Patrick is so excited to start it. He has decided to break his habit of procrastinating and planned to use a to-do list to better track his tasks. The to-do list has to be sorted so task with highest priority score comes first. Patrick just want to have a simple to-do list program that can do that, so he asks for your help since he knows that you are a great program writer

Use the suitable data structure! Otherwise your solution will not be accepted

Input Format

The first line contains a single integers n , the number of to-do list tasks

Each of the next n line contains p_i and s_i , where p_i is the priority score and s_i is the task name

Output Format

Print all the task name s_i from the highest to lowest priority

Constraints

$$1 \leq n \leq 10^3$$

$$0 \leq p_i \leq 10^4$$

$$2 \leq \text{strlen}(s_i) \leq 32$$

s_i is guaranteed to only contains a to z, "_", and no space character

p_i and s_i are guaranteed to be unique

Example

Input
5 6 doing_dishes 9 doing_laundry 8 cooking_for_dinner 3 watering_plant 0 nothing
Output
doing_laundry cooking_for_dinner doing_dishes watering_plant nothing

Explanations

When being sorted based on the priority score, the list will be as follows

```
9 doing_laundry
8 cooking_for_dinner
6 doing_dishes
3 watering_plant
0 nothing
```

Then you just need to print the task name without the number

Hints

If you have any problem when reading string input, try adding a space character at the beginning of your scanf, e.g. `scanf(" %d %s")`

Be sure to add another variable to the data structure node as you have to store additional information (task name), and don't forget to make change to related functions, such as push and top