C. Sister Cities

Time Limit: 1 second

Points: 100

Reza is organising a sister city program. He has received submissions from n cities, but is only able to arrange a relationship between one pair of cities. He believes that the most suitable pairs are those with the most similar climates, so he has researched the average temperature in each city. Help Reza pick two cities with minimum difference in average temperature.

Input

The first line of input consists of one integer, n, representing the number of cities. n lines follow, the ith of which consists of a string s_i, containing the name of the ith city, and a floating-point number t_i, the average temperature in degrees Celsius.

Constraints

All input will satisfy the following constraints:

- $2 \leq n \leq 100,000$.
- Each city name s_i is distinct.
- Each city name s_i consists only of uppercase and lowercase English letters.
- For all $1 \leq i \leq n$, $1 \leq |s_i| \leq 10$.
- Each temperature t_i is given to exactly four decimal places.
- For all $1 \leq i \leq n$, $-50 \leq t_i \leq 50$.

Output

Output two strings separated by a space, the names of two cities with minimum difference in average temperature, in any order. If multiple such pairs exist, output any of them.

Sample Input 1

```
3
Foo 0.2345
Bar 1.5643
Baz 0.4012
```

Sample Output 1

```
Foo Baz
```

Sample Input 2

```
2
Sydney 1.2323
NotSydney -1.2323
```

Sample Output 2

```
Sydney NotSydney
```

Sample Input 3

```
3
Sydney 3.1287
Perth 1.1287
Adelaide 2.1287
```

Sample Output 3

```
Sydney Adelaide
```

Explanations

In sample 1, `Foo Baz` is the correct output as those two cities are closest. `Baz Foo`, likewise, is also correct.

In sample 2, there are only two cities, resulting in the output `Sydney NotSydney`.

In sample 3, there are two combinations of cities that will be judged as correct, resulting in 4 possible correct solutions: `Sydney Adelaide`, `Perth Adelaide`, and 2 more solutions where the cities are reordered.