Problem F. Unique Nicknames

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

There are N people numbered Person 1, Person 2, ..., and Person N. Person i has a family name s_i and a given name t_i.

Consider giving a nickname to each of the N people. Person i's nickname a_i should satisfy all the conditions below.

- a_i coincides with Person i's family name or given name. In other words, $a_i = s_i$ and/or $a_i = t_i$ holds.
- a_i does not coincide with the family name and the given name of any other person. In other words, for all integer j such that $1 \leq j \leq N$ and $i \neq j$, it holds that $a_i \neq s_j$ and $a_i \neq t_j$.

Is it possible to give nicknames to all the N people? If it is possible, print `Yes`; otherwise, print `No`.

Constraints

- $2 \leq N \leq 100$
- N is an integer.
- s_i and t_i are strings of lengths between 1 and 10 (inclusive) consisting of lowercase English alphabets.

Input

Input is given from Standard Input in the following format:

$$
\begin{aligned}
&N \\
&s_1\ t_1 \\
&s_2\ t_2 \\
&\vdots \\
&s_N\ t_N
\end{aligned}
$$

Output

If it is possible to give nicknames to all the N people, print `Yes`; otherwise, print `No`.

Sample 1

Input	Output
3 tanaka taro tanaka jiro suzuki hanako	Yes

The following assignment satisfies the conditions of nicknames described in the Problem Statement: $a_1 =$ `taro`, $a_2 =$ `jiro`, $a_3 =$ `hanako`. (a_3 may be `suzuki`, too.)
However, note that we cannot let $a_1 =$ `tanaka`, which violates the second condition of nicknames, since Person 2's family name s_2 is `tanaka` too.

Sample 2

Input	Output
3 aaa bbb xxx aaa bbb yyy	No

There is no way to give nicknames satisfying the conditions in the Problem Statement.

Sample 3

Input	Output
2 tanaka taro tanaka taro	No

There may be a pair of people with the same family name and the same given name.

Sample 4

Input	Output
3 takahashi chokudai aoki kensho snu ke	Yes

We can let $a_1 =$ `chokudai`, $a_2 =$ `kensho`, and $a_3 =$ `ke`.