Begin:
2024-08-29
21:00
UTC+5.5

☆ Placement Test Series - 2

End:
2024-08-29
23:15
UTC+5.5

Elapsed:
1:54:46

Running

Remaining:
0:20:13

Time limit	2000 ms
Mem limit	1048576 kB

D - Tricky Job Sum

Problem Statement

A company has an array of jobs j. You know that the length of j is N.

The company is in some serious time crunch and wants to find out the total time taken to finish all the jobs in j and they employed you for it. Unfortunately, the company can't provide the individual time taken to finish each job due a non disclosure agreement. You only have the following Q time sums.

- The i-th time sum: The total time taken to finish jobs from l_i to r_i (both included). That is, you have $\sum_{k=l_i}^{r_i} j_k$.

Is it possible to find out the total time taken to complete all the jobs in j ($\sum_{k=1}^{N} j_k$), if you know Q time sums?

Constraints

- $1 \leq N \leq 2 \times 10^5$
- $1 \leq Q \leq \min(2 \times 10^5, \frac{N(N+1)}{2})$
- $1 \leq l_i \leq r_i \leq N$
- $(l_i, r_i) \neq (l_k, r_k)$ $(i \neq k)$
- All values in input are integers.

Input

Input is given from Standard Input in the following format:

$$
\begin{array}{l}
N\ Q \\
l_1\ r_1 \\
l_2\ r_2 \\
\quad \vdots \\
l_Q\ r_Q
\end{array}
$$

Output

If it is possible to determine the total time taken to do all the jobs in j, print `Yes` ; otherwise, print `No` .

Sample 1

Input copy	Output copy
3 3 1 2 2 3 2 2	Yes

From the first and second information, we can find the value $j_1 + j_2 + j_2 + j_3$. By subtracting the value of j_2 from it, we can determine the value $j_1 + j_2 + j_3$.

Sample 2

Input copy	Output copy
4 3 1 3 1 2 2 3	No

We can determine the sum of the first 3 elements of j, but not the sum of all elements.

Sample 3

Input copy	Output copy
4 4 1 1 2 2	Yes

Server Time: 2024-08-29 22:54:46 UTC+5.5