Problem Statement:

Given a graph of **n nodes** and **m edges**, is it possible to split the nodes among 2 different sets(left set and right set) such that the following conditions are met :

- each node should belong to either left set or right set.
- All the edges should connect nodes from different set. That means, if the edge connects nodes u and v, then one of the node should be in left set and other should be in right set.

Check if the condition is met or not. If the condition is met print “YES” otherwise “NO”.

Constraints :

- 1 <= n <= 200000
- 1 <= m <= 200000

Input :

First line contains 2 space seperated integers n and m.
Each of m following lines corresponds to an which joins u and v.

Output :

“YES” or “NO”

Sample test case 1:

Input	Output
6 5 6 4 6 4 2 4 4 5 4 1	YES

Explanation : Dividing the nodes in two sets : left set= [1,2,5,6] and right set = [3,4] is valid

Sample test case 2 :

Input	Output
5 5 1 1 4 5 5 3 4 4 3 5	NO

Explanation : Since there is a self loop 1-1, it’s impossible to satisfy the condition 2.