# Competitive Programming SS24

### Submit until end of contest

**Problem: shoal** (1 second timelimit)

During cleaning the facility management of the HPI pumped out most of the water of the Lake HPI. Only a few puddles and some small moats between the puddles are left.

And the fishes! They remained in the puddles (you can assume that each puddle contains at least one fish). To plan their strike against the facility management, they try to meet at some of the puddles. But because of the reduced water it's not clear if there is any puddle that all fishes can reach through the moats.

Since you are a nature lover, you try to help them. Each puddle has an own ID. Given the list of moats check if all fishes can meet in some puddle.

**Input**    The first line of the input contains number of puddles $n$ ($2 \leq n < 10^5$) and the number of moats $m$ ($0 \leq m < 4 \cdot 10^5$). Afterwards $m$ lines follow. Each line contains two integers $a$ and $b$ ($0 \leq a, b < n$). A pair of $a$ and $b$ represents a moat. A fish can swim through each moat in both directions. There are no self-loops or multi-edges.

**Output**    Print "YES" if there is any puddle where all fishes can meet and "NO" otherwise (without the quotes).

**Sample input**

```
4 5
1 2
3 2
0 1
3 0
2 0
```

**Sample output**

```
YES
```

**Sample input**

```
6 6
0 2
1 0
2 1
3 5
4 3
5 4
```

**Sample output**

```
NO
```