

2924. Find Champion II

There are n teams numbered from 0 to $n - 1$ in a tournament; each team is also a node in a **DAG**.

You are given the integer n and a **0-indexed** 2D integer array `edges` of length m representing the **DAG**, where `edges[i] = [ui, vi]` indicates that there is a directed edge from team u_i to team v_i in the graph.

A directed edge from a to b in the graph means that team a is **stronger** than team b and team b is **weaker** than team a .

Team a will be the **champion** of the tournament if there is no team b that is **stronger** than team a .

Return the team that will be the **champion** of the tournament if there is a **unique** champion, otherwise, return -1 .

Notes

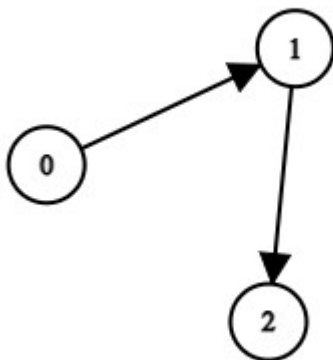
- A **cycle** is a series of nodes $a_1, a_2, \dots, a_n, a_{n+1}$ such that node a_1 is the same node as node a_{n+1} , the nodes a_1, a_2, \dots, a_n are distinct, and there is a directed edge from the node a_i to node a_{i+1} for every i in the range $[1, n]$.
- A **DAG** is a directed graph that does not have any **cycle**.

Example 1:

Input: $n = 3$, `edges = [[0,1],[1,2]]`

Output: 0

Explanation: Team 1 is weaker than team 0. Team 2 is weaker than team 1. So the champion is team 0.

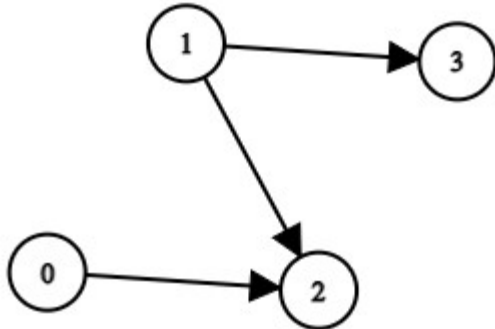


Example 2:

Input: $n = 4$, $\text{edges} = [[0,2],[1,3],[1,2]]$

Output: -1

Explanation: Team 2 is weaker than team 0 and team 1. Team 3 is weaker than team 1. But team 1 and team 0 are not weaker than any other teams. So the answer is -1.



Constraints:

- $1 \leq n \leq 100$
- $m == \text{edges.length}$
- $0 \leq m \leq n * (n - 1) / 2$
- $\text{edges}[i].\text{length} == 2$
- $0 \leq \text{edge}[i][j] \leq n - 1$
- $\text{edges}[i][0] \neq \text{edges}[i][1]$
- The input is generated such that if team a is stronger than team b , team b is not stronger than team a .
- The input is generated such that if team a is stronger than team b and team b is stronger than team c , then team a is stronger than team c .

2924. Find Champion II

```
/*
In degree count
Time compelxity: O(n)
Space compelxity: O(n)
*/
typedef std::vector<int> vi;
typedef std::vector<vi> vvi;
class Solution {
public:
    int findChampion(int n,vvi& edges){
        vi indegree(n,0);
        for(auto& edge: edges){
            indegree[edge[1]]++;
        }

        int cnt=0;
        int ans;
        for(int node=0;node<n;++node){
            if(indegree[node]==0){
                cnt++;
                ans=node;
            }
        }

        return cnt==1?ans:-1;
    }
};
```