

## 997. Find the Town Judge

Solved

Easy

Topics

Companies

In a town, there are  $n$  people labeled from  $1$  to  $n$ . There is a rumor that one of these people is secretly the town judge.

If the town judge exists, then:

1. The town judge trusts nobody.
2. Everybody (except for the town judge) trusts the town judge.
3. There is exactly one person that satisfies properties 1 and 2.

You are given an array `trust` where `trust[i] = [ai, bi]` representing that the person labeled `ai` trusts the person labeled `bi`. If a trust relationship does not exist in `trust` array, then such a trust relationship does not exist.

Return the label of the town judge if the town judge exists and can be identified, or return `-1` otherwise.

### Example 1:

**Input:** `n = 2, trust = [[1,2]]`

**Output:** `2`

### Example 2:

**Input:** `n = 3, trust = [[1,3],[2,3]]`

The screenshot shows the LeetCode interface for problem 997. The left panel displays the problem description and a submission by Zhukovlya. The right panel shows the C# code and test results.

**Submission Details:**

- Runtime: 336 ms, Beats 92.81%
- Memory: 70.51 MB, Beats 89.22%

**Code:**

```
C#
1  // Найти человека, которому доверяют все, но он никому не доверяет
2
3  for (int i = 1; i <= n; i++) {
4      if (trustCounts[i] == n - 1) {
5          return i;
6      }
7  }
8
9  return -1; // Если такого человека нет, возвращаем -1
10
11 }
```

**Testcase:** Accepted Runtime: 62 ms

**Case 1:**

Input:

```
n = 2
trust = [[1,2]]
```

Код:

```
public class Solution
{
    public int FindJudge(int n, int[][] trust)
    {
        if (n == 1) return 1; // Если в городе один человек, он является судьей по определению
    }
}
```

```

int[] trustCounts = new int[n + 1]; // Массив для подсчета доверия

// Обрабатываем массив доверий
foreach (var t in trust)
{
    trustCounts[t[0]]--; // t[0] доверяет кому-то, поэтому уменьшаем счетчик
    trustCounts[t[1]]++; // t[1] получает доверие, поэтому увеличиваем
}

// Поиск человека, которому доверяют все, но он никому не доверяет
for (int i = 1; i <= n; i++)
{
    if (trustCounts[i] == n - 1)
    {
        return i;
    }
}

return -1; // Если такого человека нет, возвращаем -1
}

```