

1101. The Earliest Moment When Everyone Become Friends
Premium

Solved

Medium

Topics

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Hint

There are  $n$  people in a social group labeled from  $0$  to  $n - 1$ . You are given an array `logs` where `logs[i] = [timestampi, xi, yi]` indicates that `xi` and `yi` will be friends at the time `timestampi`.

Friendship is **symmetric**. That means if `a` is friends with `b`, then `b` is friends with `a`. Also, person `a` is acquainted with a person `b` if `a` is friends with `b`, or `a` is a friend of someone acquainted with `b`.

Return *the earliest time for which every person became acquainted with every other person*. If there is no such earliest time, return `-1`.

Example 1:

**Input:** `logs = [[20190101,0,1],[20190104,3,4],[20190107,2,3],[20190211,1,5],[20190224,2,4],[20190301,0,3],[20190312,1,2],[20190322,4,5]]`, `n = 6`

**Output:** `20190301`

Explanation:

The first event occurs at `timestamp = 20190101`, and after `0` and `1` become friends, we have the following friendship groups `[0,1]`, `[2]`, `[3]`, `[4]`, `[5]`.

The second event occurs at `timestamp = 20190104`, and after `3` and `4` become friends, we have the following friendship groups `[0,1]`, `[2]`, `[3,4]`, `[5]`.

The third event occurs at `timestamp = 20190107`, and after `2` and `3` become friends, we have the following friendship groups `[0,1]`, `[2,3,4]`, `[5]`.

The fourth event occurs at `timestamp = 20190211`, and after `1` and `5` become friends, we have the following friendship groups `[0,1,5]`, `[2,3,4]`.

The fifth event occurs at `timestamp = 20190224`, and as `2` and `4` are already friends, nothing happens.

The sixth event occurs at `timestamp = 20190301`, and after `0` and `3` become friends, we all become friends.

Example 2:

**Input:** `logs = [[0,2,0],[1,0,1],[3,0,3],[4,1,2],[7,3,1]]`, `n = 4`

**Output:** `3`

**Explanation:** At `timestamp = 3`, all the persons (i.e., `0`, `1`, `2`, and `3`) become friends.

Constraints:

- `2 <= n <= 100`
- `1 <= logs.length <= 104`
- `logs[i].length == 3`
- `0 <= timestampi <= 109`
- `0 <= xi, yi <= n - 1`
- `xi != yi`