759. Employee Free Time Premium

Hard   🏷 Topics   ▣ Companies   ⚲ Hint

We are given a list `schedule` of employees, which represents the working time for each employee.

Each employee has a list of non-overlapping `Intervals`, and these intervals are in sorted order.

Return the list of finite intervals representing **common, positive-length free time** for *all* employees, also in sorted order.

(Even though we are representing `Intervals` in the form `[x, y]`, the objects inside are `Intervals`, not lists or arrays. For example, `schedule[0][0].start = 1`, `schedule[0][0].end = 2`, and `schedule[0][0][0]` is not defined). Also, we wouldn't include intervals like [5, 5] in our answer, as they have zero length.

Example 1:

```
Input: schedule = [[[1,2],[5,6]],[[1,3]],[[4,10]]]
Output: [[3,4]]
Explanation: There are a total of three employees, and all common
free time intervals would be [-inf, 1], [3, 4], [10, inf].
We discard any intervals that contain inf as they aren't finite.
```

Example 2:

```
Input: schedule = [[[1,3],[6,7]],[[2,4]],[[2,5],[9,12]]]
Output: [[5,6],[7,9]]
```

Constraints:

- `1 <= schedule.length , schedule[i].length <= 50`

- `0 <= schedule[i].start < schedule[i].end <= 10^8`

Seen this question in a real interview before?   1/5

Yes   No

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🏷 Topics   ⌃

Array   Sorting   Heap (Priority Queue)

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6 months ago

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⚲ Hint 1   ⌃

Take all the intervals and do an "events" (or "line sweep") approach - an event of (x, OPEN) increases the number of active intervals, while (x, CLOSE) decreases it. Processing in sorted order from left to right, if the number of active intervals is zero, then you crossed a region of common free time.

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