

3440. Reschedule Meetings for Maximum Free Time II

Solved ●

Medium

Topics



Hint

You are given an integer `eventTime` denoting the duration of an event. You are also given two integer arrays `startTime` and `endTime`, each of length `n`.

These represent the start and end times of `n` **non-overlapping** meetings that occur during the event between time `t = 0` and time `t = eventTime`, where the `ith` meeting occurs during the time `[startTime[i], endTime[i]]`.

You can reschedule **at most** one meeting by moving its start time while maintaining the **same duration**, such that the meetings remain non-overlapping, to **maximize** the **longest continuous period of free time** during the event.

Return the **maximum** amount of free time possible after rearranging the meetings.

Note that the meetings can **not** be rescheduled to a time outside the event and they should remain non-overlapping.

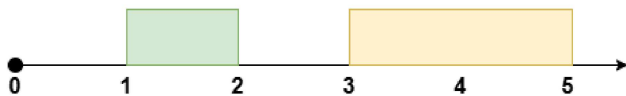
Note: In this version, it is **valid** for the relative ordering of the meetings to change after rescheduling one meeting.

Example 1:

Input: `eventTime = 5, startTime = [1,3], endTime = [2,5]`

Output: 2

Explanation:



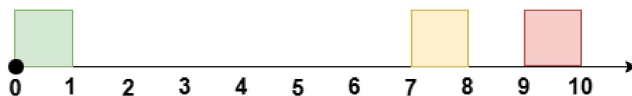
Reschedule the meeting at `[1, 2]` to `[2, 3]`, leaving no meetings during the time `[0, 2]`.

Example 2:

Input: `eventTime = 10, startTime = [0,7,9], endTime = [1,8,10]`

Output: 7

Explanation:

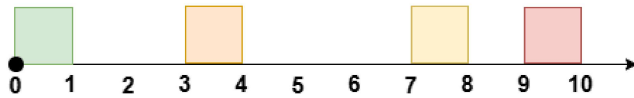


Reschedule the meeting at `[0, 1]` to `[8, 9]`, leaving no meetings during the time `[0, 7]`.

Example 3:

Input: `eventTime = 10, startTime = [0,3,7,9], endTime = [1,4,8,10]`

Output: 6

Explanation:

Reschedule the meeting at `[3, 4]` to `[8, 9]`, leaving no meetings during the time `[1, 7]`.

Example 4:

Input: `eventTime = 5`, `startTime = [0,1,2,3,4]`, `endTime = [1,2,3,4,5]`

Output: 0

Explanation:

There is no time during the event not occupied by meetings.

Constraints:

- $1 \leq \text{eventTime} \leq 10^9$
- $n == \text{startTime.length} == \text{endTime.length}$
- $2 \leq n \leq 10^5$
- $0 \leq \text{startTime}[i] < \text{endTime}[i] \leq \text{eventTime}$
- $\text{endTime}[i] \leq \text{startTime}[i + 1]$ where i lies in the range $[0, n - 2]$.

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

Yes No

Accepted **79.019**/130.3K | Acceptance Rate **60.6**%

Topics



Hint 1

Discussion (122)