

## 5805. The Number of the Smallest Unoccupied Chair

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There is a party where  $n$  friends numbered from  $0$  to  $n - 1$  are attending. There is an **infinite** number of chairs in this party that are numbered from  $0$  to  $\infty$ . When a friend arrives at the party, they sit on the unoccupied chair with the **smallest number**.

- For example, if chairs  $0$ ,  $1$ , and  $5$  are occupied when a friend comes, they will sit on chair number  $2$ .

When a friend leaves the party, their chair becomes unoccupied at the moment they leave. If another friend arrives at that same moment, they can sit in that chair.

You are given a **0-indexed** 2D integer array `times` where `times[i] = [arrivali, leavingi]`, indicating the arrival and leaving times of the  $i^{\text{th}}$  friend respectively, and an integer `targetFriend`. All arrival times are **distinct**.

Return the **chair number** that the friend numbered `targetFriend` will sit on.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

## Example 1:

**Input:** `times = [[1,4],[2,3],[4,6]]`, `targetFriend = 1`

**Output:** `1`

**Explanation:**

- Friend  $0$  arrives at time  $1$  and sits on chair  $0$ .
  - Friend  $1$  arrives at time  $2$  and sits on chair  $1$ .
  - Friend  $1$  leaves at time  $3$  and chair  $1$  becomes empty.
  - Friend  $0$  leaves at time  $4$  and chair  $0$  becomes empty.
  - Friend  $2$  arrives at time  $4$  and sits on chair  $0$ .
- Since friend  $1$  sat on chair  $1$ , we return  $1$ .

## Example 2:

**Input:** `times = [[3,10],[1,5],[2,6]]`, `targetFriend = 0`

**Output:** `2`

**Explanation:**

- Friend  $1$  arrives at time  $1$  and sits on chair  $0$ .
  - Friend  $2$  arrives at time  $2$  and sits on chair  $1$ .
  - Friend  $0$  arrives at time  $3$  and sits on chair  $2$ .
  - Friend  $1$  leaves at time  $5$  and chair  $0$  becomes empty.
  - Friend  $2$  leaves at time  $6$  and chair  $1$  becomes empty.
  - Friend  $0$  leaves at time  $10$  and chair  $2$  becomes empty.
- Since friend  $0$  sat on chair  $2$ , we return  $2$ .

## Constraints:

- $n == \text{times.length}$
- $2 \leq n \leq 10^4$
- $\text{times}[i].\text{length} == 2$
- $1 \leq \text{arrival}_i < \text{leaving}_i \leq 10^5$
- $0 \leq \text{targetFriend} \leq n - 1$
- Each  $\text{arrival}_i$  time is **distinct**.

JavaScript



```
1 ▾ /**
2   * @param {number[][]} times
3   * @param {number} targetFriend
4   * @return {number}
5   */
6 ▾ var smallestChair = function(times, targetFriend) {
7
8   };
```

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