2323. Find Minimum Time to Finish All Jobs II Premium

Medium | Topics | Companies | Hint

You are given two **0-indexed** integer arrays `jobs` and `workers` of **equal** length, where `jobs[i]` is the amount of time needed to complete the i^{th} job, and `workers[j]` is the amount of time the j^{th} worker can work each day.

Each job should be assigned to **exactly** one worker, such that each worker completes **exactly** one job.

Return *the **minimum** number of days needed to complete all the jobs after assignment.*

Example 1:

> **Input:** jobs = [5,2,4], workers = [1,7,5]
> **Output:** 2
> **Explanation:**
> - Assign the 2^{nd} worker to the 0^{th} job. It takes them 1 day to finish the job.
> - Assign the 0^{th} worker to the 1^{st} job. It takes them 2 days to finish the job.
> - Assign the 1^{st} worker to the 2^{nd} job. It takes them 1 day to finish the job.
> It takes 2 days for all the jobs to be completed, so return 2.
> It can be proven that 2 days is the minimum number of days needed.

Example 2:

> **Input:** jobs = [3,18,15,9], workers = [6,5,1,3]
> **Output:** 3
> **Explanation:**
> - Assign the 2^{nd} worker to the 0^{th} job. It takes them 3 days to finish the job.
> - Assign the 0^{th} worker to the 1^{st} job. It takes them 3 days to finish the job.
> - Assign the 1^{st} worker to the 2^{nd} job. It takes them 3 days to finish the job.
> - Assign the 3^{rd} worker to the 3^{rd} job. It takes them 3 days to finish the job.
> It takes 3 days for all the jobs to be completed, so return 3.
> It can be proven that 3 days is the minimum number of days needed.

Constraints:

- `n == jobs.length == workers.length`
- `1 <= n <= 10^5`
- `1 <= jobs[i], workers[i] <= 10^5`

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

Yes No

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Topics

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Amazon 2

Hint 1

It is always optimal to pair the worker with the least amount of time with the job that requires the least amount of time.

Hint 2

Sort both arrays.

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