

621. Task Scheduler

Solved ●

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You are given an array of CPU `tasks`, each represented by letters A to Z, and a cooling time, `n`. Each cycle or interval allows the completion of one task. Tasks can be completed in any order, but there's a constraint: **identical** tasks must be separated by at least `n` intervals due to cooling time.

Return the *minimum number of intervals* required to complete all tasks.

Example 1:

Input: `tasks = ["A","A","A","B","B","B"], n = 2`

Output: 8

Explanation: A possible sequence is: A -> B -> idle -> A -> B -> idle -> A -> B.

After completing task A, you must wait two cycles before doing A again. The same applies to task B. In the 3rd interval, neither A nor B can be done, so you idle. By the 4th cycle, you can do A again as 2 intervals have passed.

Example 2:

Input: `tasks = ["A","C","A","B","D","B"], n = 1`

Output: 6

Explanation: A possible sequence is: A -> B -> C -> D -> A -> B.

With a cooling interval of 1, you can repeat a task after just one other task.

Example 3:

Input: `tasks = ["A","A","A", "B","B","B"], n = 3`

Output: 10

Explanation: A possible sequence is: A -> B -> idle -> idle -> A -> B -> idle -> idle -> A -> B.

There are only two types of tasks, A and B, which need to be separated by 3 intervals. This leads to idling twice between repetitions of these tasks.

Constraints:

- `1 <= tasks.length <= 104`
- `tasks[i]` is an uppercase English letter.
- `0 <= n <= 100`

Seen this question in a real interview before? 1/4

Yes No

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