2462. Total Cost to Hire K Workers

Hint

Medium 1.5K 355

Companies

You are given a **0-indexed** integer array `costs` where `costs[i]` is the cost of hiring the i^{th} worker.

You are also given two integers `k` and `candidates`. We want to hire exactly `k` workers according to the following rules:

- You will run `k` sessions and hire exactly one worker in each session.
- In each hiring session, choose the worker with the lowest cost from either the first `candidates` workers or the last `candidates` workers. Break the tie by the smallest index.
  - For example, if `costs = [3,2,7,7,1,2]` and `candidates = 2`, then in the first hiring session, we will choose the 4^{th} worker because they have the lowest cost `[3,2,7,7,1,2]`.
  - In the second hiring session, we will choose 1^{st} worker because they have the same lowest cost as 4^{th} worker but they have the smallest index `[3,2,7,7,2]`. Please note that the indexing may be changed in the process.
- If there are fewer than candidates workers remaining, choose the worker with the lowest cost among them. Break the tie by the smallest index.
- A worker can only be chosen once.

Return *the total cost to hire exactly* `k` *workers.*

Example 1:

Input: costs = [17,12,10,2,7,2,11,20,8], k = 3, candidates = 4
Output: 11
Explanation: We hire 3 workers in total. The total cost is initially 0.
- In the first hiring round we choose the worker from [17,12,10,2,7,2,11,20,8]. The lowest cost is 2, and we break the tie by the smallest index, which is 3. The total cost = 0 + 2 = 2.
- In the second hiring round we choose the worker from [17,12,10,7,2,11,20,8]. The lowest cost is 2 (index 4). The total cost = 2 + 2 = 4.
- In the third hiring round we choose the worker from [17,12,10,7,11,20,8]. The lowest cost is 7 (index 3). The total cost = 4 + 7 = 11. Notice that the worker with index 3 was common in the first and last four workers.
The total hiring cost is 11.

Example 2:

Input: costs = [1,2,4,1], k = 3, candidates = 3
Output: 4
Explanation: We hire 3 workers in total. The total cost is initially 0.
- In the first hiring round we choose the worker from [1,2,4,1]. The lowest cost is 1, and we break the tie by the smallest index, which is 0. The total cost = 0 + 1 = 1. Notice that workers with index 1 and 2 are common in the first and last 3 workers.
- In the second hiring round we choose the worker from [2,4,1]. The lowest cost is 1 (index 2). The total cost = 1 + 1 = 2.
- In the third hiring round there are less than three candidates. We choose the worker from the remaining workers [2,4]. The lowest cost is 2 (index 0). The total cost = 2 + 2 = 4.
The total hiring cost is 4.

Constraints:

- `1 <= costs.length <= 10^5`
- `1 <= costs[i] <= 10^5`
- `1 <= k, candidates <= costs.length`

Accepted **63.1K** Submissions **138.9K** Acceptance Rate **45.4%**

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

Yes No

Discussion (86)

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