

Problem List

Problem List

Editorial

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1176. Diet Plan Performance

Premium

Solved

Easy

Topics

Companies

Hint

A dieter consumes `calories[i]` calories on the `i`-th day.

Given an integer `k`, for **every** consecutive sequence of `k` days (`calories[i]`, `calories[i+1]`, ..., `calories[i+k-1]` for all `0 <= i <= n-k`), they look at `7`, the total calories consumed during that sequence of `k` days (`calories[i] + calories[i+1] + ... + calories[i+k-1]`):

- If `T < lower`, they performed poorly on their diet and lose 1 point:
- If `T > upper`, they performed well on their diet and gain 1 point:
- Otherwise, they performed normally and there is no change in points.

Initially, the dieter has zero points. Return the total number of points the dieter has after dieting for `calories.length` days.

Note that the total points can be negative.

Example 1:

Input: `calories = [1,2,3,4,5]`, `k = 1`, `lower = 3`, `upper = 3`

Output: `0`

Explanation: Since `k = 1`, we consider each element of the array separately and compare it to lower and upper. `calories[0]` and `calories[1]` are less than lower so 2 points are lost. `calories[3]` and `calories[4]` are greater than upper so 2 points are gained.

Example 2:

Input: `calories = [3,2]`, `k = 2`, `lower = 0`, `upper = 1`

Output: `1`

Explanation: Since `k = 2`, we consider subarrays of length 2. `calories[0] + calories[1] > upper` so 1 point is gained.

Example 3:

Input: `calories = [6,5,0,0]`, `k = 2`, `lower = 1`, `upper = 5`

Output: `0`

Explanation: `calories[0] + calories[1] > upper` so 1 point is gained. `lower <= calories[1] + calories[2] <= upper` so no change in points. `calories[2] + calories[3] < lower` so 1 point is lost.

Constraints:

- `1 <= k <= calories.length <= 10^5`
- `0 <= calories[i] <= 20000`
- `0 <= lower <= upper`

Seen this question in a real interview before?

1/5

Yes

No

Accepted

32.1K

Submissions

60.1K

Acceptance Rate

53.3%

Topics

Companies

Hint 1

Discussion (5)

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Python3

Auto

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class Solution:

def dietPlanPerformance(self, calories: List[int], k: int, lower: int, upper: int) -> int:

points = 0

calori = sum(calories[0:0+k])

if calori < lower:

points -= 1

elif calori > upper:

points += 1

for i in range(1, len(calories)-k+1):

calori -= calories[i-1]

calori += calories[i+k-1]

if calori < lower:

points -= 1

elif calori > upper:

points += 1

return points

Ln 9, Col 29

Testcase

Test Result

Accepted

Runtime: 46 ms

Case 1

Case 2

Case 3

Input

calories =

[1,2,3,4,5]

k =

1