

SLIDING

Video-15



WINDOW

MECHANISM...

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easy



930. Binary Subarrays With Sum

Medium

Topics

Companies

Given a binary array `nums` and an integer `goal` return the number of non-empty subarrays with a sum goal.

A subarray is a contiguous part of the array.

Example :- `nums = {1, 0, 1, 0, 1}` , `goal = 2`

Output = 4

ARRAYS (1-D/2-D) • SIMPLEST EXPLANATION • BRUTE FORCE • OPTIMAL

LEETCODE - 560
LEETCODE - 1074

Subarray Sum Equals K
Number of Submatrices That Sum to Target

1 pe 1 FREE

Number of Submatrices That Sum to Target | Subarray Sum Equals K | Leetcode 1074 | Leetcode 560

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56:53

2D
1D

Brute Force

T.L.E

- ① Find all possible subarrays.
- ② Count those subarrays whose sum is equal to goal.

Optimal :-

(using some concept of

Leetcode-560)
Cumulative Sum
+ Map

nums = [1, 0, 1, 0, 1] goal = 2

map

Sum	count
0	1
1	2
2	1

$$\text{currSum} = 1 + 0 + 1 + 0 + 1 = 3$$

$$3 - \text{goal} = 3 - 2 = 1$$

$$\text{result} += \text{mp}[0] = 1 + 1 = 2 + 2 = 4$$

Approach-2 (Sliding Window)

$$\text{nums} = \{1, 0, 1, 0, 1\}, \text{goal} = 2$$

$$\text{windowSum} += 1 + 0 + 1 + 0 + 1 = 3 - 1 = 2$$

$$\text{result} = 1 + 1 + 1 + 1$$

$$\text{goal} = 2$$

$$\text{result} = 1 + 1 + 1$$

{ 0, 0, 0, 1, 1 }

$$\text{count} = 1 + 1 + 1$$

$$\text{window-sum} = 0 + 0 + 0 + 1 + 1$$

{ 0, 1, 0, 0, 1 } . goal = 2

$$\text{window-sum} = 0 + 1 + 0 + 0 + 1 = 2$$

$$\text{result} = 1 + 1 = 2$$

if (w == goal) {

$$\text{res} = 1 + \text{Puzer}$$

