SLIDING WINDOW MECHANISM...

video - 15

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easy
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930. Binary Subarrays With Sum

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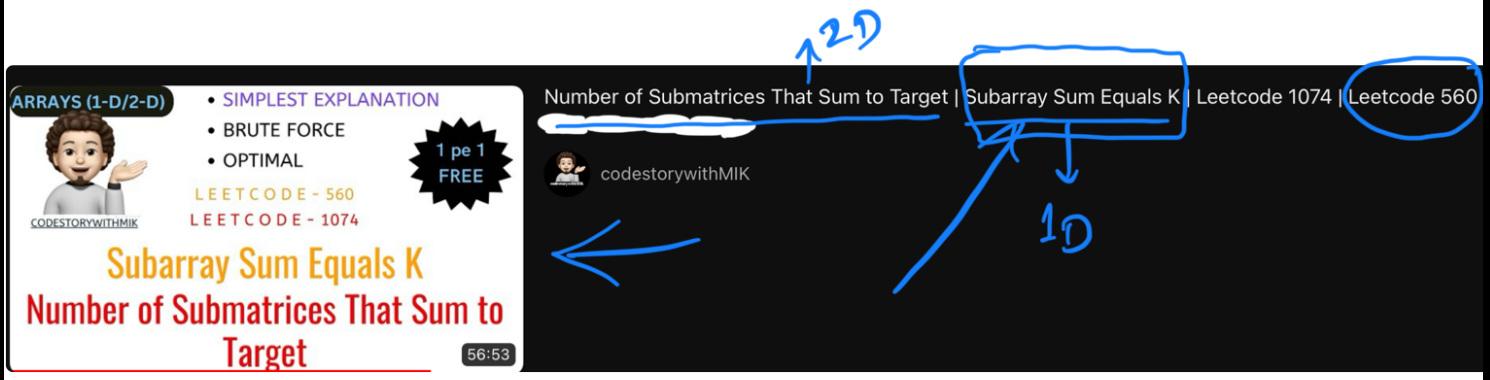
Given a binary array `nums` and an integer `goal`, return *the number of non-empty **subarrays** with a sum* `goal`.

A **subarray** is a contiguous part of the array.

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

Output = 4



Brute Force :-

T.L.E

① Find all possible subarrays.

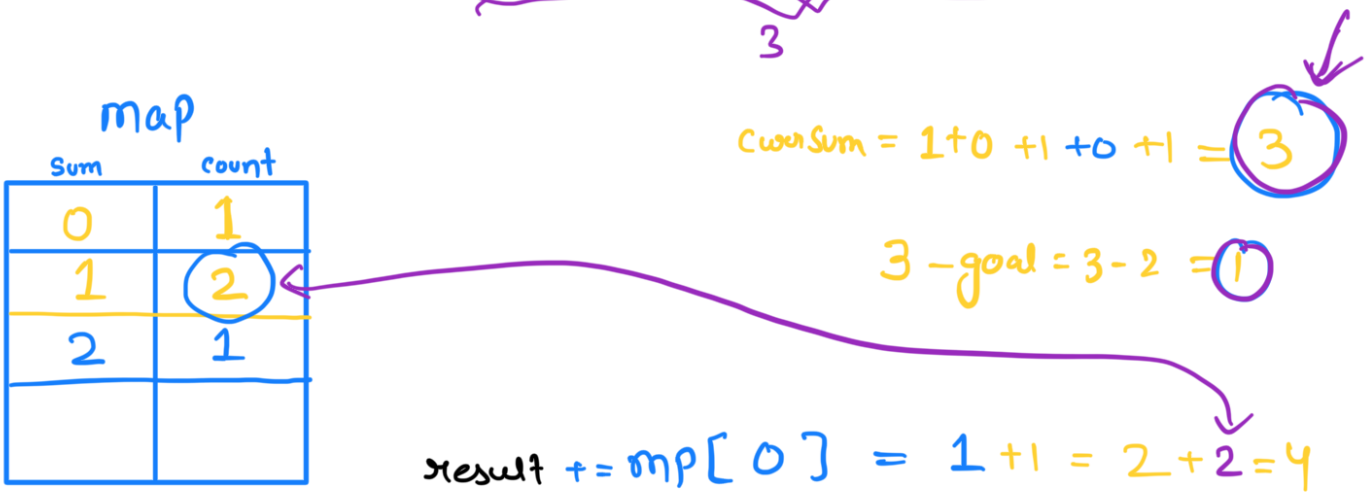
② Count those subarrays whose sum is equal to goal.

Optimal :-

(using same concept of Leetcod-560)

→ Cumulative Sum + Map

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



Approach-2

(Sliding window)

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

windowSum += 1+0+1+0+1 = 3-1 = 2

result = 1+1+1+1

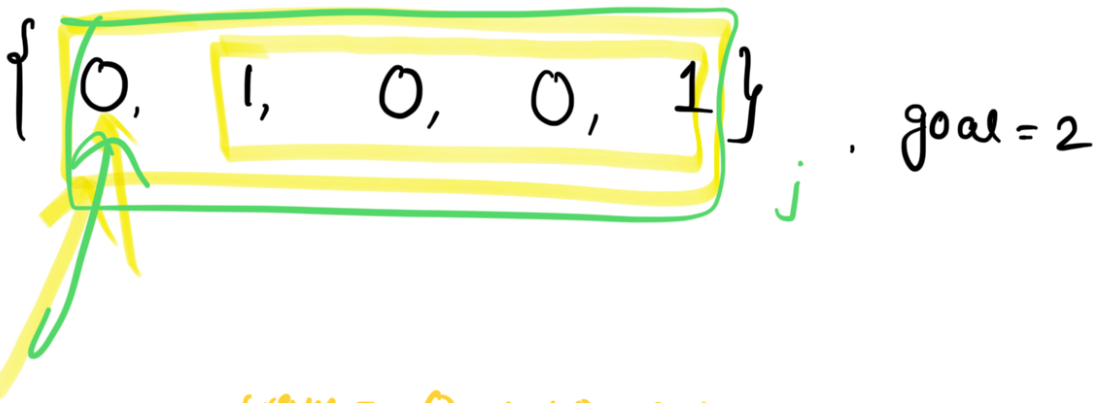
goal = 2

result = 1 + 1 + 0 + 1

{ 0, 0, 0, 1, 1 }
  i j

count = 1 + 1 + 1

wind-sum = 0 + 0 + 0 + 1 + 1



wsum = 0 + 1 + 0 + 0 + 1 = 2

result = 1 + 1 = 2

if (wi = goal) {

re = 1 + Pf(Zero)

}