The Algorithm Design Canvas

Problem name: Subarray Sum Equals K

HIRED IN TECH

Constraints

1. (nums: int[], k: int) --> sub: int
2. Find all subarrays that sums to k
3. all numbers >= 0.
4. 1 <= nums.len <= 2*10^4
5. -1000 <= nums[i] <= 1000
6. -10^7 <= k <= 10^7

Ideas

Bruteforce: Infeasible due to constrains For w= len For i=each item: For j=i; j<i+w	O(n!n^2) O(1)
Smart: For i=each item sum += n[cur = i] while sum < k if (++cur < len) sum += n[cur]:	O(n^2) O(1)

Test Cases

[1,1,1], 2 --> 2
[1,2,3], 3 --> 2

Code