

Zero Sum Subarrays

Medium Accuracy: 50.41% Submissions: 28275 Points: 4

You are given an array `arr[]` of size `n`. Find the total count of sub-arrays having their sum equal to 0.

Example 1:

Input:

`n = 6`

`arr[] = {0,0,5,5,0,0}`

Output: 6

Explanation: The 6 subarrays are `[0]`, `[0]`, `[0]`, `[0]`, `[0,0]`, and `[0,0]`.

Example 2:

Input:

`n = 10`

`arr[] = {6,-1,-3,4,-2,2,4,6,-12,-7}`

Output: 4

Explanation: The 4 subarrays are `[-1 -3 4]`, `[-2 2]`, `[2 4 6 -12]`, and `[-1 -3 4 -2 2]`

Your Task:

You don't need to read input or print anything. Complete the function **findSubarray()** that takes the array `arr` and its size `n` as input parameters and returns the total number of sub-arrays with 0 sum.

Expected Time Complexity : $O(n)$

Expected Auxilliary Space : $O(n)$

Constraints:

$$1 \leq n \leq 10^7$$

$$-10^{10} \leq \text{arr}_i \leq 10^{10}$$

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