

# Zero Sum Subarrays

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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 :**  $O(n)$

```
class Solution:
    #Function to count subarrays with sum equal to 0.
    def findSubArrays(self,arr,n):
        freq = {}
        freq[0]=1
        prefixSum = 0
        count = 0
        for i, ele in enumerate(arr):
            prefixSum = prefixSum + ele
            if prefixSum in freq:
                count = count+freq[prefixSum]
                freq[prefixSum] = freq[prefixSum]+1
            else:
                freq[prefixSum] = 1
        return count
```