AlgoExpert Quad Layout Swift 12px Sublime Monokai 00:00:00

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

Solution 1

```
1\, // Copyright @ 2020 AlgoExpert, LLC. All rights reserved.
   class Program {
       // Average: O(n^2) time | O(n^2) space
       // Worst: O(n^3) time | O(n^2) space
       func fourNumberSum(array: [Int], targetSum: Int) -> [[Int]] {
           var allPairSums = [Int: [[Int]]]()
 8
           var quadruplets = [[Int]]()
9
10
           for i in 1 ... array.count - 1 \{
11
12
               for j in i + 1 ...
13
                   let currentSum = array[i] + array[j]
                   let difference = targetSum - currentSum
14
15
                   if allPairSums.keys.contains(difference) {
16
17
                       for pair in allPairSums[difference]! {
                           quadruplets.append(pair + [array[i], array[j]])
18
19
20
21
               }
22
23
               for k in 0 ... i {
24
                   let currentSum = array[k] + array[i]
25
26
                   if !allPairSums.keys.contains(currentSum) {
27
                       allPairSums[currentSum] = [[array[k], array[i]]]
28
29
                       \verb| allPairSums[currentSum]!.append([array[k], array[i]])| \\
30
31
32
33
           return quadruplets
34
35
36 }
```