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

 Prompt
 Scratchpad
 Our Solution(s)
 Video Explanation

Run Code

Solution 1

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```
1 \, # Copyright @ 2020 AlgoExpert, LLC. All rights reserved.
 3 # Average: O(n^2) time | O(n^2) space
 4 # Worst: O(n^3) time | O(n^2) space
 5 def fourNumberSum(array, targetSum):
       allPairSums = {}
       quadruplets = []
       for i in range(1, len(array) - 1):
 8
9
           for j in range(i + 1, len(array)):
10
              currentSum = array[i] + array[j]
               difference = targetSum - currentSum
11
               if difference in allPairSums:
12
13
                   for pair in allPairSums[difference]:
                      quadruplets.append(pair + [array[i], array[j]])
14
           for k in range(0, i):
15
               currentSum = array[i] + array[k]
16
               if currentSum not in allPairSums:
17
18
                   allPairSums[currentSum] = [[array[k], array[i]]]
19
20
                  allPairSums[currentSum].append([array[k], array[i]])
21
       return quadruplets
```