
Your Ultimate Guide To Landing
Top AI roles
DECODE
AiML

P-4

Q. Input : array = [1, 0, -1, 0, -2, 2]

Target = 1

Output : return all quadruplets with sum Target

Constraints

1 <= array.size <= 200

Bruteforce

Target = 1

array = [1, 0, -1, 0, -2, 2]

↓ Sorted

[-2, -1, 0, 0, 1, 2]

3-Sum

⇒ Sorting + 2-pointer + Set

Sub optimal

Bruteforce → $O(n^4)$

↓

$O(n^3)$

array = [1, 0, -1, 0, -2, 2]

↓ Sorted

[-2, -1, 0, 0, 1, 2]

i, j, k, l

2-pointer

Bruteforce

- i → [0, n-1]
- j → [i+1, n-1]
- k → [j+1, n-1]
- l → [k+1, n-1]

arr[i] + arr[j] + arr[k] + arr[l] = Target

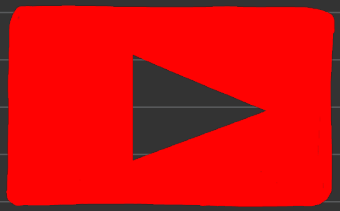
arr[k] + arr[l] = Target − (arr[i] + arr[j])

Optimal

array = [1, 0, -1, 0, -2, 2]

↓ Sorted

[-2, -1, 0, 0, 1, 2]

Like  Subscribe