
Your Ultimate Guide To Landing
Top AI roles
DECODE
AiML

P-2

Q. Input : array = [2, 4, 5, 6, 8] ← Sorted

Target = 13

Output : return [i1, i2]

2 → 4, 5, 6, 8 ✓

4 → 5, 6, 8 ✓

5 → 6, 8 ✓

6 → 8 ✓

Constraints

$2 <= array.size <= 10^4$

Better

Sorted → array = [2, 4, 5, 6, 8] → n ← unsorted
HT

Target = 13

a

Target - a

↳ index

→ Last Lecture (P1)

↳ Array (Unsorted) + Hash Table Amortized

↳ O(1) Search

↳ T(n) = O(n) Amortized

↳ Space = O(n) ← Hash Table

Optimal

array = [2, 4, 5, 6, 8] ← n

Target = 13

Pair

⇒ l >= r

l == r ✗

l > r

→ Sorted

↳ Better Approach → O(n) + O(n) — Time <= Space <=

↳ Two Pointer

⇒ T(n) = O(n)

⇒ Space = O(1)

l, r = 0, n-1

→ while l < r: ← O(n)

if arr[l] + arr[r] == Target:

return [l, r] ← O(1)

elif arr[l] + arr[r] < Target:

l += 1 ← O(1)

else:

r -= 1

return []

⇒ l = 0

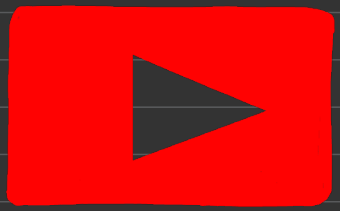
r = n-1

0 → 1 → 2 → 3 → (n-1)

↳ (n) iter

n-1 → n-2 → n-3 → .. 0

↳ (n) iterat

Like  Subscribe