

55. Jump Game

Medium Topics Companies

You are given an integer array `nums`. You are initially positioned at the array's **first index**, and each element in the array represents your maximum jump length at that position.

Return `true` if you can reach the last index, or `false` otherwise.

Example 1:

Input: `nums = [2,3,1,1,4]`

Output: `true`

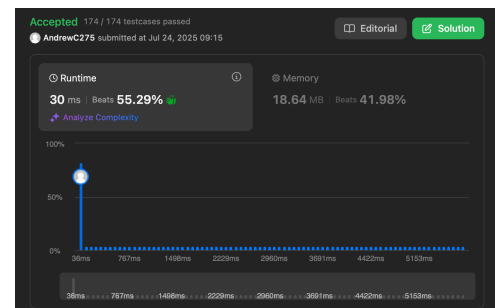
Explanation: Jump 1 step from index 0 to 1, then 3 steps to the last index.

DP

farthest can reach

index :	0	1	2	3	4
nums :	2	3	1	1	4
<hr/>					
dp :	2	4			
max :	2	4			

```
1 class Solution:
2     def canJump(self, nums: List[int]) -> bool:
3         if not nums:
4             return False
5         dp = [0] * len(nums)
6         max_can = 0
7         l = len(nums)
8
9         for i in range(l):
10            if max_can >= l-1:
11                return True
12
13            if i <= max_can:
14                dp[i] = i + nums[i]
15                max_can = max(max_can, dp[i])
16
17            #print(dp, max_can)
18
19        return False
```



13 min