

Description

Solution

Discuss (999+)

Submissions

11. Container With Most Water

Medium

9590

719

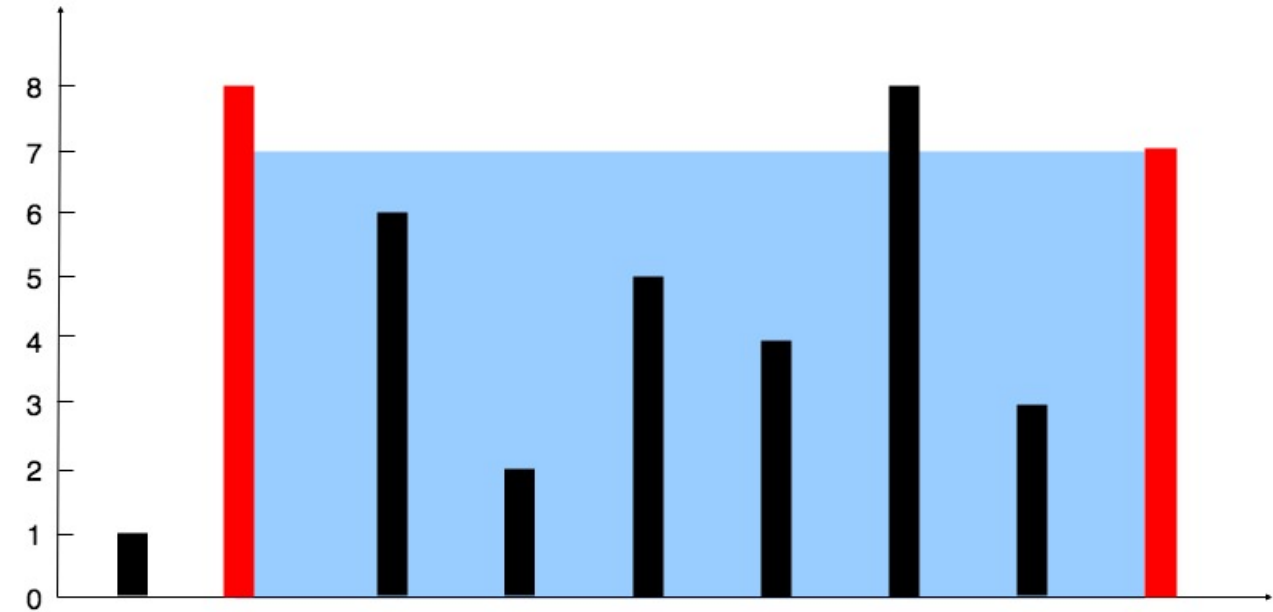
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Given n non-negative integers a_1, a_2, \dots, a_n , where each represents a point at coordinate (i, a_i) . n vertical lines are drawn such that the two endpoints of the line i is at (i, a_i) and $(i, 0)$. Find two lines, which, together with the x-axis forms a container, such that the container contains the most water.

Notice that you may not slant the container.

Example 1:



Input: height = [1,8,6,2,5,4,8,3,7]

Output: 49

Explanation: The above vertical lines are represented by array [1,8,6,2,5,4,8,3,7]. In this case, the max area of water (blue section) the container can contain is 49.

Example 2:

Input: height = [1,1]

Output: 1

Example 3:

Input: height = [4,3,2,1,4]

Output: 16

Example 4:

Input: height = [1,2,1]

Output: 2

Constraints:

- $n == \text{height.length}$
- $2 \leq n \leq 10^5$
- $0 \leq \text{height}[i] \leq 10^4$

Accepted 954,891

Submissions 1,802,464

Seen this question in a real interview before?

Yes

No

Companies

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```
1 class Solution:
2     def maxArea(self, height:
List[int]) -> int:
3         length = len(height)
4         w = length
5         l = 0
6         r = length-1
7         max_area = -1
8         while l != r:
9             if height[l] <
height[r]:
10                 h = height[l]
11                 w = w - 1
12                 area = w * h
13                 l += 1
14             else:
15                 h = height[r]
16                 w = w - 1
17                 area = w * h
18                 r -= 1
19             if max_area <
area:
20                 max_area =
area
21         return max_area
```

Testcase

Run Code Result

Debugger

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Accepted

Runtime: 48 ms

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Your input

[1,8,6,2,5,4,8,3,7]

[1,1]

stdout

Height: 1

Width: 8

Height: 7

Width: 7

Height: 3

Width: 6

Height: 8

Width: 5

Height: 4

Width: 4

Console

Use Example Testcases

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Run Code

Submit