- HARD
- Max Score: 40 Points

https://course.acciojob.com/idle?question=142ae3a2-073f-4620-b1a2-92b3bbc 87710

Trapping Rainwater Problem

Given n non-negative integers representing an elevation map where the width of each bar is 1. Compute how much water it can trap after rain.

Input Format:

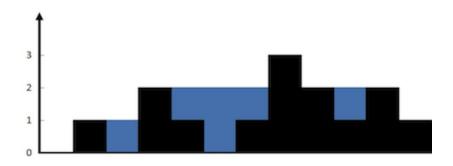
The first line contains one integer input n, the size of the array.

The second line contains n space-separated integers (arr[i]) that describe the width of each bar.

Output Format:

Prints a single integer value, which represents the amount of water it can hold.

Example 1:



Input:

12 0 1 0 2 1 0 1 3 2 1 2 1 Output:

6

Explanation: The above elevation map (black section) is represented by array [0,1,0,2,1,0,1,3,2,1,2,1]. In this case, 6 units of rain water (blue section) are being trapped.

Example 2:

Input:

6 4 2 0 3 2 5

Output:

9

Explanation: In this case, 9 units of rainwater will be trapped.

Constraints:

n == height.length

1 <= n <= 2 * 10⁴

0 <= arr[i] <= 10⁵

Topic Tags

- 2-Pointers
- DP

My code

```
import java.util.*;
import java.lang.*;
import java.io.*;
public class Main
        public static void main (String[] args) throws java.lang.Exception
               //your code here
          Scanner s=new Scanner(System.in);
          int n=s.nextInt();
          int arr[]=new int[n];
          for(int i=0;i< n;i++)
           arr[i]=s.nextInt();
          int rp=n-1, lp=0;
          int lb=arr[0],rb=arr[n-1];
          int ans=0;
          while(lp<rp)
                 if(lb<rb)//which is lower move + add capacity.
                   if(lb<arr[lp])
                       lb=arr[lp];
                   }
                      else
                     ans+=(lb-arr[lp]);
                        lp++;
                   }
                 }
```