**Module Introduction**

Write a program to take as input n positive integers representing the elevation map of an area and output how much water can be trapped during rains.

Problem Solving

**Objective**

Given n non-negative integers as input, representing an elevation map where the width of each bar is 1, compute how much water can get trapped during rains.



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

**Note**

This is a slightly harder problem - after spending some time thinking about the problem, feel free to see the Problem Pseudocode Hint and write the solution from there. The important realization from this module should be that if you have spent enough time thinking about the problem using examples and find out an approach that you can explain easily, writing code should be a cakewalk.

**Examples**

**Example 1**

Input:

8 --> Number of elements in array

0 1 0 2 1 0 1 3 --> Array elements

Output:

5

**Example 2**

Input:

3

50 100 150

Output:

0