Placement/Internship Class - 4

Topics: Two pointers and Contribution technique

Binary Search?

Question - 1(Standard) :
https://leetcode.com/problems/two-sum/

Given an array of integers `nums` and an integer `target`, return *indices of the two numbers such that they add up to* `target`.

You may assume that each input would have ***exactly* one solution**, and you may not use the *same* element twice.

You can return the answer in any order.

Example 1:

```
Input: nums = [2,7,11,15], target = 9
Output: [0,1]
Explanation: Because nums[0] + nums[1] == 9, we return [0, 1].
```

Example 2:

```
Input: nums = [3,2,4], target = 6
Output: [1,2]
```

Question - 2 (Standard)

Given an array A of size n. Find the maximum value of min(A[i], A[j]) * (i - j)?

Link: https://leetcode.com/problems/container-with-most-water/description/

Question - 3 (Homework)

https://leetcode.com/problems/trapping-rain-water/

Contribution Technique?

Question - 4 (Standard)

Given an array A of size n. Find the sum of values of all subarrays.

1 <= n <= 1e5

0 <= A[i] <= 1e9

Question - 5 (Standard)

Given an array A of size n. Find the sum of values of all subsequences.

1 <= n <= 1e5

0 <= A[i] <= 1e9

Question - 5 (Standard)

Find the sum of ORs of all subarrays of array A of size n.

1 <= n <= 1e5

0 <= A[i] <= 1e9

Question - 6

Given an array A of size n, you create all possible subsequences of it. Now, for each subsequence you find difference of maximum and minimum of that subsequence. Find the sum.

1 <= n <= 1e5

0 <= A[i] <= 1e9

Question - 7

Find the sum of paths of every ordered pair of nodes in a tree with n nodes.

1 <= n <= 1e5