

Day1

Easy Level

Code 1:Single Number

Company : Amazon, wipro, Capgemini, DXC technology, Schlumberger, Avizva, epam, cadence, paytm, atlassian,cultfit+7

Platform: LeetCode - 136
Striver's SDE Sheet

Description:

Given a non-empty array of integers nums, every element appears twice except for one. Find that single one.

You must implement a solution with a linear runtime complexity and use only constant extra space.

Example 1:

Input: nums = [2,2,1]

Output: 1

Example 2:

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

Output: 4

Example 3:

Input: nums = [1]

Output: 1

Constraints:

$1 \leq \text{nums.length} \leq 3 * 10^4$

$-3 * 10^4 \leq \text{nums}[i] \leq 3 * 10^4$

Each element in the array appears twice except for one element which appears only once.

Code2: First Repeating Element

Company: Amazon, oracle

Platform: GFG

Striver's SDE Sheet

Description:

Given an array `arr[]` of size `n`, find the first repeating element. The element should occur more than once and the index of its first occurrence should be the smallest.

Note:- The position you return should be according to 1-based indexing.

Example 1:

Input:

`n = 7`

`arr[] = {1, 5, 3, 4, 3, 5, 6}`

Output: 2

Explanation:

5 is appearing twice and its first appearance is at index 2 which is less than 3 whose first occurring index is 3.

Example 2:

Input:

`n = 4`

`arr[] = {1, 2, 3, 4}`

Output: -1

Explanation:

All elements appear only once so the answer is -1.

Expected Time Complexity: $O(n)$

Expected Auxiliary Space: $O(n)$

Constraints:

$1 \leq n \leq 10^6$

$0 \leq A_i \leq 10^6$

Code3: Key Pair

Company: Zoho, Flipkart, Morgan Stanley, Accolite, Amazon, Microsoft, FactSet, Hike, Adobe, Google, Wipro, SAP Labs, CarWale

Platform: GFG

Description:

Given an array Arr of N positive integers and another number X. Determine whether or not there exist two elements in Arr whose sum is exactly X.

Example 1:

Input:

N = 6, X = 16

Arr[] = {1, 4, 45, 6, 10, 8}

Output: Yes

Explanation: Arr[3] + Arr[4] = 6 + 10 = 16

Example 2:

Input:

N = 5, X = 10

Arr[] = {1, 2, 4, 3, 6}

Output: Yes

Explanation: Arr[2] + Arr[4] = 4 + 6 = 10

Expected Time Complexity: O(N)

Expected Auxiliary Space: O(N)

Constraints:

$1 \leq N \leq 10^5$

$1 \leq \text{Arr}[i] \leq 10^5$

****Solutions Will Be Provided Within 24 Hrs***