Leetcode Problems

1 st april : **Topic ARRAY**

1. [26. Remove Duplicates from Sorted Array](https://leetcode.com/problems/remove-duplicates-from-sorted-array)

Brute force solution :

class Solution(object):

def removeDuplicates(self, nums):

if not nums:

return 0

k = 1

for i in range(len(nums)):

duplicate = 0

for j in range(k):

if nums[i] == nums[j]:

duplicate = 1

break

if duplicate == 0:

nums[k] = nums[i]

k += 1

return k

1. [35. Search Insert Position](https://leetcode.com/problems/search-insert-position)
2. [88. Merge Sorted Array](https://leetcode.com/problems/merge-sorted-array)

num1 = [1,2,3,0,0,0]

i =num1[0]

num2 = [2,5,6]

j= num2[0]]

num3 = [,,,,,,,]

Copy num3 to num1

[2535. Difference Between Element Sum and Digit Sum of an Array](https://leetcode.com/problems/difference-between-element-sum-and-digit-sum-of-an-array/) - O(n)

1. Number (25) Mod 10 = 5 // value = 5
2. Number (25 )Divide by 10 // number =2
3. number(2) Mod 10 = 2 // value = 2

977. Squares of a Sorted Array

[977. Squares of a Sorted Array](https://leetcode.com/problems/squares-of-a-sorted-array/)

Worst case O(nlogn) : Using sorting algorithm : MERGE SORT

Best case O(n)

**Input:** nums = [-4,-1,0,3,10]

**Output:** [0,1,9,16,100]

**Explanation:** After squaring, the array becomes [16,1,0,9,100].

After sorting, it becomes [0,1,9,16,100].

**Example 2:**

**Input:** nums = [-7,-3,2,3,11]

**Output:** [4,9,9,49,121]