* Remove duplicates from a sorted array :-

nums = [0, 0, 1, 1, 1, 2, 2, 3, 3, 4]

O/p :- k = 5, nums = [0, 1, 2, 3, 4, _, _, _, _, _]

→ Arrays will always be sorted in ascending order.
→ We have to do it in-place. So we cannot create a new arr.

* Two pointer approach

	0	1	2	3	4	5	6	7	8	9
nums =	0	0	1	1	1	2	2	3	3	4

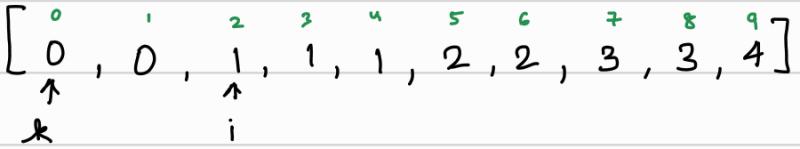
→ The input array has to be modified in-place such that the first k elements are unique.
→ So, initially k = 0 because we don't know how many duplicates are there in the array.

[0, 0, 1, 1, 1, 2, 2, 3, 3, 4]
 ↑
 k

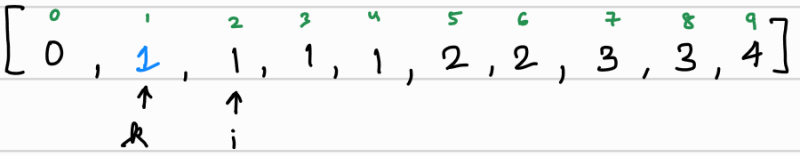
→ k represents the position of a unique element.
→ Since we don't know how many dups exists, we initialized k = 0 which means that the first element is unique.
→ Now we need to iterate over the array from index 1 & compare with element at k.

	0	1	2	3	4	5	6	7	8	9
	0	0	1	1	1	2	2	3	3	4
	↑	↑								
	k	i								

→ Here, nums[k] == nums[i]. So we have found a duplicate.
→ Ideally, the element next to k should be unique.
→ So we search for unique element & put it just next to k.



→ Found unique, so putting it next to k.



→ Initially k=0 which represented that the 0th element is unique.

→ Now we have place 1 next to k on index 1.

→ This means that we have unique elements from index [0, 1].

→ So, we point k to 1. & so on.

→ Thus, every unique element will be placed next to k & k will point to the updated unique element.

→ Once the loop is completed, we know that the elements from range [0, k] are unique.

→ Hence, we return (k+1) because 0-indexed array.

TC :- O(n)

SC :- O(1)

Code - https://github.com/TheParthMaru/DSA/tree/main/leetcode/0026_Remove_dup_from_sorted_arr

Problem - https://leetcode.com/problems/remove-duplicates-from-sorted-array/