**REMOVE DUPLICATES FROM SORTED ARRAY**

Given an integer array nums sorted in **non-decreasing order**, remove the duplicates [**in-place**](https://en.wikipedia.org/wiki/In-place_algorithm) such that each unique element appears only **once**. The **relative order** of the elements should be kept the **same**. Then return *the number of unique elements in*nums.

Consider the number of unique elements of nums to be k, to get accepted, you need to do the following things:

* Change the array nums such that the first k elements of nums contain the unique elements in the order they were present in nums initially. The remaining elements of nums are not important as well as the size of nums.
* Return k

**CODE**

class Solution {

public:

    int removeDuplicates(vector<int>& nums) {

        if (nums.empty())

        {

            return 0;

        }

        int k = 0;

        for (int i = 1; i < nums.size(); i++) {

            if (nums[i] != nums[k])

            {

                k++;

                nums[k] = nums[i];

            }

        }

        return k + 1;

    }

};

**SAMPLE OUTPUT**

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

**Output:** 2, nums = [1,2,\_]

**Explanation:** Your function should return k = 2, with the first two elements of nums being 1 and 2 respectively.

It does not matter what you leave beyond the returned k (hence they are underscores)