**[Missing Number](https://leetcode.com/problems/missing-number/)**

Given an array nums containing n distinct numbers in the range [0, n], return *the only number in the range that is missing from the array.*

**Example 1:**

**Input:** nums = [3,0,1]

**Output:** 2

**Explanation:** n = 3 since there are 3 numbers, so all numbers are in the range [0,3]. 2 is the missing number in the range since it does not appear in nums.

**Example 2:**

**Input:** nums = [0,1]

**Output:** 2

**Explanation:** n = 2 since there are 2 numbers, so all numbers are in the range [0,2]. 2 is the missing number in the range since it does not appear in nums.

**Example 3:**

**Input:** nums = [9,6,4,2,3,5,7,0,1]

**Output:** 8

**Explanation:** n = 9 since there are 9 numbers, so all numbers are in the range [0,9]. 8 is the missing number in the range since it does not appear in nums.

**Constraints:**

* n == nums.length
* 1 <= n <= 104
* 0 <= nums[i] <= n
* All the numbers of nums are **unique**.

class Solution {

public:

    int missingNumber(vector<int>& nums) {

        int n = nums.size();

        vector<int>v(n+1,-1);

        for(int i =0;i<nums.size();i++){

            v[nums[i]] = nums[i];

        }

        for(int i =0;i<v.size();i++){

            if(v[i]==-1)return i;

        }

        return 0;

    }

};

Link : <https://leetcode.com/problems/missing-number/?envType=daily-question&envId=2024-02-20>