[LeetCode](https://leetcode.com/problems/first-missing-positive/description/?envType=daily-question&envId=2024-03-26)

<https://github.com/AdityaKonda6/-50DaysOfCoding>

<https://leetcode.com/problems/first-missing-positive/description/?envType=daily-question&envId=2024-03-26>

<https://www.linkedin.com/in/aditya-adi-konda/>

Day 36 of [#50dayscodingchallenge](https://www.linkedin.com/feed/hashtag/?keywords=50dayscodingchallenge&highlightedUpdateUrns=urn:li:activity:7166316239483461633):  
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Ventured further into my coding journey today, tackling the engaging LeetCode Problem "Successfully solved LeetCode Problem 🎈💻“41. First Missing Positive.”  
   
✨ Task: Given an unsorted integer array nums. Return the smallest positive integer that is not present in nums.

You must implement an algorithm that runs in O(n) time and uses O(1) auxiliary space.

Examples:

Example 1:

Input: nums = [1,2,0]

Output: 3

Explanation: The numbers in the range [1,2] are all in the array.

Example 2:

Input: nums = [3,4,-1,1]

Output: 2

Explanation: 1 is in the array but 2 is missing.

Example 3:

Input: nums = [7,8,9,11,12]

Output: 1

Explanation: The smallest positive integer 1 is missing.

Let's Connect:

If you find this problem intriguing or have insights to share, let's connect! I'm passionate about problem-solving, algorithmic thinking, and collaborative learning. Feel free to comment or reach out for engaging discussions and knowledge exchange.Unravel the mystery using your coding skills!

[#CodingChallenge](https://www.linkedin.com/feed/hashtag/?keywords=codingchallenge&highlightedUpdateUrns=urn:li:activity:7166316239483461633) [#Algorithm](https://www.linkedin.com/feed/hashtag/?keywords=algorithm&highlightedUpdateUrns=urn:li:activity:7166316239483461633) [#LinkedInPost](https://www.linkedin.com/feed/hashtag/?keywords=linkedinpost&highlightedUpdateUrns=urn:li:activity:7166316239483461633) #Algorithm #Optimization #DataStructures #CodingChallenge  
  
Excited about the progress and challenges ahead!  
   
Make Sure You Follow My GitHub For Solutions: <https://github.com/AdityaKonda6/-50DaysOfCoding>  
  
  
Happy coding!

**Solution:-**

class Solution {

  public int firstMissingPositive(int[] nums) {

    final int n = nums.length;

    for (int i = 0; i < n; ++i)

      while (nums[i] > 0 && nums[i] <= n && nums[i] != nums[nums[i] - 1])

        swap(nums, i, nums[i] - 1);

    for (int i = 0; i < n; ++i)

      if (nums[i] != i + 1)

        return i + 1;

    return n + 1;

  }

  private void swap(int[] nums, int i, int j) {

    final int temp = nums[i];

    nums[i] = nums[j];

    nums[j] = temp;

  }

}

