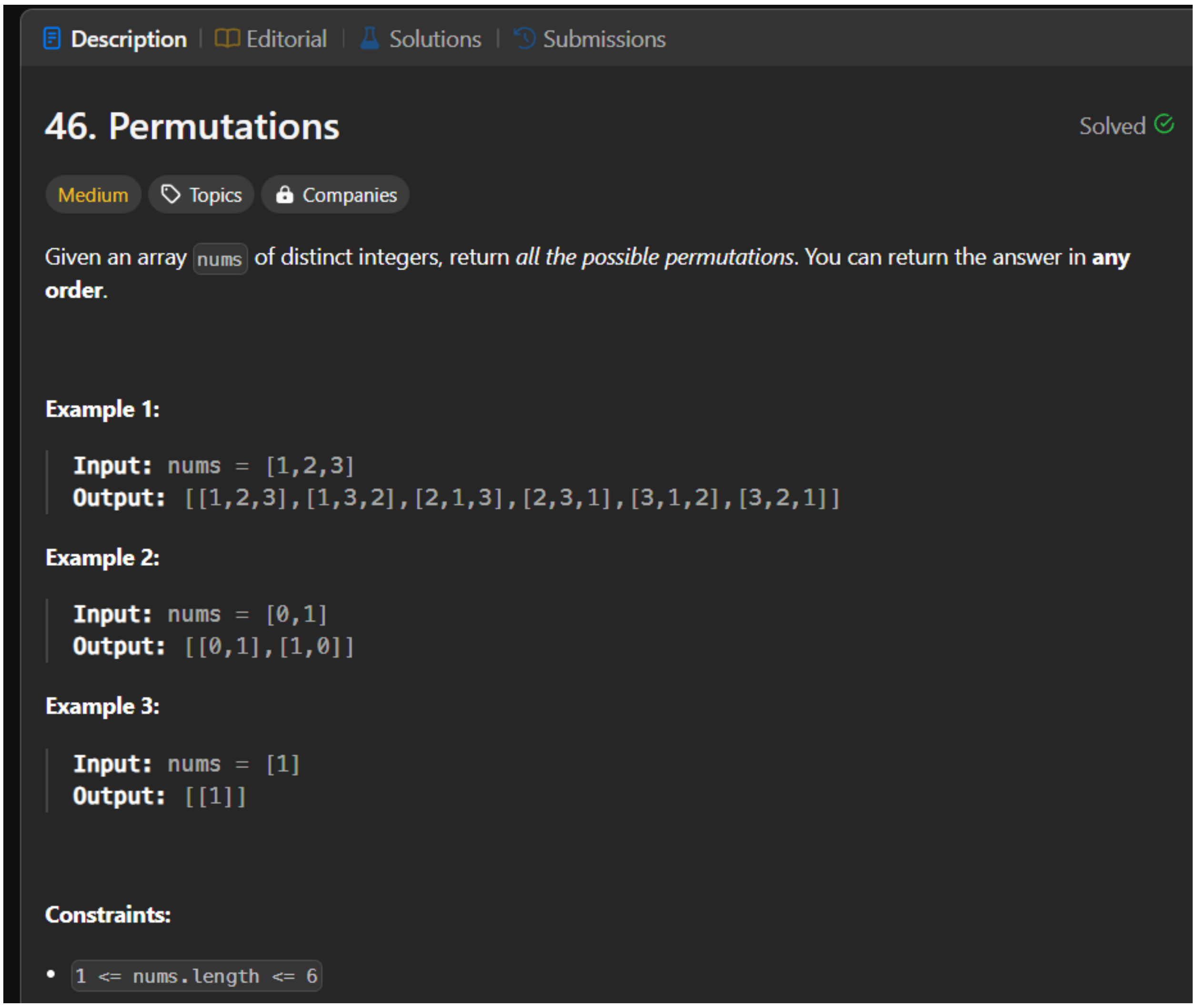


Description | Editorial | Solutions | Submissions

46. Permutations

Solved

Medium | Topics | Companies

Given an array `nums` of distinct integers, return *all the possible permutations*. You can return the answer in **any order**.

Example 1:

```
Input: nums = [1,2,3]
Output: [[1,2,3],[1,3,2],[2,1,3],[2,3,1],[3,1,2],[3,2,1]]
```

Example 2:

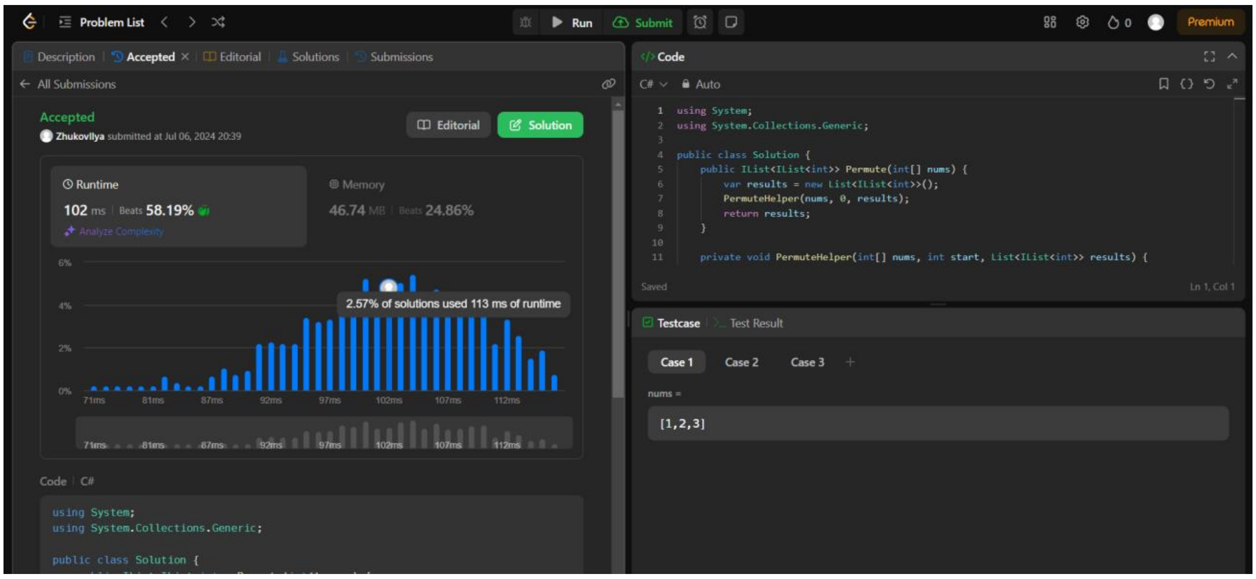
```
Input: nums = [0,1]
Output: [[0,1],[1,0]]
```

Example 3:

```
Input: nums = [1]
Output: [[1]]
```

Constraints:

- `1 <= nums.length <= 6`



Accepted
ZhukovIlya submitted at Jul 06, 2024 20:39

Runtime
102 ms | Beats 58.19%
Analyze Complexity

Memory
46.74 MB | Beats 24.86%

2.57% of solutions used 113 ms of runtime

Code | C#

```
using System;
using System.Collections.Generic;

public class Solution {
    public IList<IList<int>> Permute(int[] nums) {
        var results = new List<IList<int>>();
        PermuteHelper(nums, 0, results);
        return results;
    }

    private void PermuteHelper(int[] nums, int start, List<IList<int>> results) {
```

Saved   Ln 1, Col 1

nums =

```
[1,2,3]
```

Код:

```
using System;
using System.Collections.Generic;

public class Solution
{
    public IList<IList<int>> Permute(int[] nums)
    {
        var results = new List<IList<int>>();
        PermuteHelper(nums, 0, results);
        return results;
    }

    private void PermuteHelper(int[] nums, int start, List<IList<int>> results)
    {
        if (start == nums.Length)
        {
            results.Add(new List<int>(nums));
            return;
        }

        for (int i = start; i < nums.Length; i++)
        {
            Swap(nums, start, i);
            PermuteHelper(nums, start + 1, results);
            Swap(nums, start, i);  // backtrack
        }
    }

    private void Swap(int[] nums, int i, int j)
    {
        int temp = nums[i];
        nums[i] = nums[j];
        nums[j] = temp;
    }
}
```