

Assignment 3 – Data Structures and Algorithms

By:

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Sheikh Shihabun Sakib

LeetCode Problem number 46 : Permutations

C++

Auto

```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
8     ...
9 }
```

Testcase

Result

Accepted Runtime: 6 ms

• Case 1

• Case 2

• Case 3

• Case 4

• Case 5

Input

nums =
[1,2,3]

Output

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

Expected

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

Contribute a testcase

Console

Reset Testcases

Run

Submit

C++

Auto



```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
```

Testcase **Result**

Accepted Runtime: 6 ms

• Case 1 • **Case 2** • Case 3 • Case 4 • Case 5

Input

nums =
[0,1]

Output

[[0,1],[1,0]]

Expected

[[0,1],[1,0]]

♥ [Contribute a testcase](#)

Console

[Reset Testcases](#)



Run

Submit

i C++

Auto



```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
```

Testcase

Result



Accepted Runtime: 6 ms



• Case 1 • Case 2 • Case 3 • Case 4 • Case 5

Input

nums =
[1]



Output

[[1]]

Expected

[[1]]

♥ Contribute a testcase

Console

Reset Testcases



Run

Submit

C++ Auto



```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
```

Testcase Result

Accepted Runtime: 6 ms

• Case 1 • Case 2 • Case 3 • Case 4 • Case 5

Input

nums =
[1,-6,-3,5,6,-5]

Output

[[1,-6,-3,5,6,-5], [1,-6,-3,5,-5,6], [1,-6,-3,6,5,-5], [1,-6,-3,6,-5,5], [1,-6,-3,-5,5,6], [1,-6,-3,-5,6,5], [1,-6,5,-3,6,-5], [1,-6,5,-3,-5,6], [1,-6,5,6,-3,-5], [1,-6,5,6,-5,-3], [1,-6,5,-5,-3,6], [1,-6,5,-5,6,-3], [1,-6,6,-3,5,-5], [1,-6,6,-3,-5,5], [1,-6,6,5,-3,-5], [1,-6,6,5,-5,-3], [1,-6,6,-5,-3,5], [1,-6,6,-5,5,-3], [1,-6,-5,-3,5,6], [1,-6,-5,-3,6,5], [1,-6,-5,5,-3,6], [1,-6,-5,5,6,-3], [1,-6,-5,6,-3,5], [1,-6,-5,6,5,-3], [1,-3,-6,5,6,-5], [1,-3,-6,5,-5,6], [1,-3,-6,6,5,-5], [1,-3,-6,6,-5,5], [1,-3,-6,-5,5,6], [1,-3,-6,-5,6,5], [1,-3,5,-6,6,-5], [1,-3,5,-6,-5,6], [1,-3,5,6,-6,-5], [1,-3,5,6,-5,-6], [1,-3,5,-5,-6,6], [1,-3,5,-5,6,-6], [1,-3,6,-6,5,-5], [1,-3,6,-6,-5,5], [1,-3,6,5,-6,-5], [1,-3,6,5,-5,-6], [1,-3,6,-5,-6,5], [1,-3,6,-5,5,-6], [1,-3,-5,-6,5,6], [1,-3,-5,-6,6,5], [1,-3,-5,5,-6,6], [1,-3,-5,5,6,-6], [1,-3,-5,6,-6,5], [1,-3,-5,6,5,-6], [1,5,-6,-3,6,-5], [1,5,-6,-3,-5,6], [1,5,-6,6,-3,-5], [1,5,-6,6,-5,-3], [1,5,-6,-5,-3,6], [1,5,-6,-5,6,-3], [1,5,-3,-6,6,-5], [1,5,-3,-6,-5,6], [1,5,-3,6,-6,-5], [1,5,-3,6,-5,-6], [1,5,-3,-5,-6...]

Console Reset Testcases

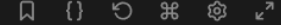


Run

Submit

C++

Auto



```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
```

Testcase

Result

Accepted Runtime: 6 ms



• Case 1 • Case 2 • Case 3 • Case 4 • Case 5

Input

```
nums =
[-1,-2,-3,5,6,-5]
```

Output

```
[[-1,-2,-3,5,6,-5], [-1,-2,-3,5,-5,6], [-1,-2,-3,6,5,-5], [-1,-2,-3,6,-5,5], [-1,-2,-3,-5,5,6], [-1,-2,-3,-5,6,5], [-1,-2,5,-3,6,-5], [-1,-2,5,-3,-5,6], [-1,-2,5,6,-3,-5], [-1,-2,5,6,-5,-3], [-1,-2,5,-5,-3,6], [-1,-2,5,-5,6,-3], [-1,-2,6,-3,5,-5], [-1,-2,6,-3,-5,5], [-1,-2,6,5,-3,-5], [-1,-2,6,5,-5,-3], [-1,-2,6,-5,-3,5], [-1,-2,6,-5,5,-3], [-1,-2,-5,-3,5,6], [-1,-2,-5,-3,6,5], [-1,-2,-5,5,-3,6], [-1,-2,-5,5,6,-3], [-1,-2,-5,6,-3,5], [-1,-2,-5,6,5,-3], [-1,-3,-2,5,6,-5], [-1,-3,-2,5,-5,6], [-1,-3,-2,6,5,-5], [-1,-3,-2,6,-5,5], [-1,-3,-2,-5,5,6], [-1,-3,-2,-5,6,5], [-1,-3,5,-2,6,-5], [-1,-3,5,-2,-5,6], [-1,-3,5,6,-2,-5], [-1,-3,5,6,-5,-2], [-1,-3,5,-5,-2,6], [-1,-3,5,-5,6,-2], [-1,-3,6,-2,5,-5], [-1,-3,6,-2,-5,5], [-1,-3,6,5,-2,-5], [-1,-3,6,5,-5,-2], [-1,-3,6,-5,-2,5], [-1,-3,6,-5,5,-2], [-1,-3,-5,-2,5,6], [-1,-3,-5,-2,6,5], [-1,-3,-5,5,-2,6], [-1,-3,-5,5,6,-2], [-1,-3,-5,6,-2,5], [-1,-3,-5,6,5,-2], [-1,5,-2,-3,6,-5], [-1,5,-2,-3,-5,6], [-1,5,-2,6,-3,-5], [-1,5,-2,6,-5,-3], [-1,5,-2,-5,-3,6], [-1,5,-2,-5,6,-3], [-1,5,-3,-2,6,-5], [-1,5,-3,-2,5,6], ...]
```

Console

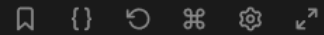
[Reset Testcases](#)

Run

Submit

C++

Auto



```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
```

Testcase

Result

Invalid Testcase

expected variables nums[0]:1 and nums[1]:1 to have different values

Console

[Reset Testcases](#)



Run

Submit

Description Discussion Solutions Submissions

Close

Accepted

Next question

• 47. Permutations II

More challenges

• 31. Next Permutation

• 47. Permutations II

• 60. Permutation Sequence

All statuses



All languages



Accepted

a minute ago

C++



Accepted

14 hours ago

C++



sakibskib

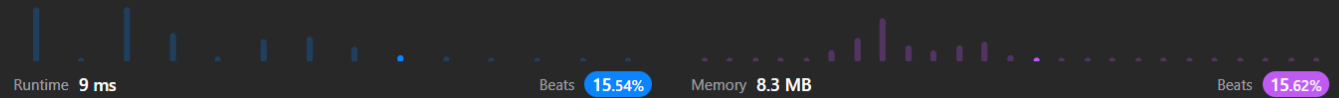
Feb 07, 2023 12:16



Details

+ Solution

C++



Click the distribution chart to view more details

Notes

Write your notes here

Related Tags

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0/5

```
#include <iostream>
#include <vector>

using namespace std;

class Solution
{
public:
    void iPermute(vector<int> &nums, vector<vector<int>> &ans, vector<int> ds, int freq[])
```

Console ^



Run

Submit

LeetCode Problem 22 : Generate Parentheses

C++

Auto

1#include <iostream>

2#include <vector>

3

4using namespace std;

5

6class Solution

7{

Testcase

Result

Accepted

Runtime: 0 ms

• Case 1

• Case 2

• Case 3

• Case 4

Input

n =

3

Output

["(()())","()()()","()()()","()()()","()()()"]

Expected

["(()())","()()()","()()()","()()()","()()()"]

Console

Reset Testcases

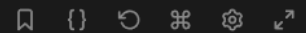
Run

Submit

Contribute a testcase

C++

Auto



```
1 #include <iostream>
2 #include <vector>
3
4 using namespace std;
5
6 class Solution
7 {
```

Testcase Result

Accepted Runtime: 0 ms



- Case 1
- Case 2
- Case 3
- Case 4

Input

n =
1

Output

["()"]

Expected

["()"]

♥ Contribute a testcase

Console

Reset Testcases



Run

Submit

- **Auto**

Testcase

Result

- Case 1
- Case 2
- Case 3
- Case 4

$$n = 8$$
[illegible]

Console

Run

Submit

- **Auto**



Input

Output

Run

Submit

Description

Discussion (31)

Solutions (6.4K)

Submissions

× Close

✔ Accepted

Next question

• 23. Merge k Sorted Lists

More challenges

• 17. Letter Combinations of a Phone Number

• 2116. Check if a Parentheses String Can Be Valid

All statuses

All languages

Accepted

a few seconds ago

C++

>

Accepted

15 hours ago

C++

>



sakibskib

Feb 07, 2023 12:51



Details

+ Solution

C++



Runtime 4 ms

Beats 66.77%

Memory 15.6 MB

Beats 21.97%

Click the distribution chart to view more details

Notes

Write your notes here

Related Tags

Select tags

0/5

```
#include <iostream>
#include <vector>

using namespace std;

class Solution
{
public:
    void iPremute(int n, vector<string> &ans, int l, int r, string s)
```

Console ^



Run

Submit

LeetCode Problem 78 : Subsets

C++

Auto

```
1 // Given an integer array nums of unique elements, return all possible subsets (the power set).The solution set must not contain duplicate subsets.
  Return the solution in any order.
2
3 #include <iostream>
4 #include <vector>
5
6 using namespace std;
```

Testcase

Result

Accepted

Runtime: 3 ms

Case 1

Case 2

Case 3

Case 4

Case 5

Input

nums =
[1,2,3]

Output

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

Expected

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

Contribute a testcase

Console

Reset Testcases

Run

Submit

i C++

Auto



```
1 // Given an integer array nums of unique elements, return all possible subsets (the power set).The solution set must not contain duplicate subsets.
  Return the solution in any order.
2
3 #include <iostream>
4 #include <vector>
5
6 using namespace std;
```

Testcase

Result

Accepted Runtime: 3 ms

- Case 1
- **Case 2**
- Case 3
- Case 4
- Case 5

Input

nums =
[0]

Output

[[0], []]

Expected

[[], [0]]

♥ Contribute a testcase

Console

[Reset Testcases](#)



Run

Submit

C++

Auto



```
1 // Given an integer array nums of unique elements, return all possible subsets (the power set).The solution set must not contain duplicate subsets.
  Return the solution in any order.
2
3 #include <iostream>
4 #include <vector>
5
6 using namespace std;
```

Testcase

Result

Accepted

Runtime: 3 ms



• Case 1 • Case 2 • Case 3 • Case 4 • Case 5

Input

nums =
[-1,6,1,5,-4,2,3]

Output

[[-1,6,1,5,-4,2,3], [-1,6,1,5,-4,2], [-1,6,1,5,-4,3], [-1,6,1,5,-4], [-1,6,1,5,2,3], [-1,6,1,5,2], [-1,6,1,5,3], [-1,6,1,5], [-1,6,1,-4,2,3], [-1,6,1,-4,2], [-1,6,1,-4,3], [-1,6,1,-4], [-1,6,1,2,3], [-1,6,1,2], [-1,6,1,3], [-1,6,1], [-1,6,5,-4,2,3], [-1,6,5,-4,2], [-1,6,5,-4,3], [-1,6,5,-4], [-1,6,5,2,3], [-1,6,5,2], [-1,6,5,3], [-1,6,5], [-1,6,-4,2,3], [-1,6,-4,2], [-1,6,-4,3], [-1,6,-4], [-1,6,2,3], [-1,6,2], [-1,6,3], [-1,6], [-1,1,5,-4,2,3], [-1,1,5,-4,2], [-1,1,5,-4,3], [-1,1,5,-4], [-1,1,5,2,3], [-1,1,5,2], [-1,1,5,3], [-1,1,5], [-1,1,-4,2,3], [-1,1,-4,2], [-1,1,-4,3], [-1,1,-4], [-1,1,2,3], [-1,1,2], [-1,1,3], [-1,1], [-1,5,-4,2,3], [-1,5,-4,2], [-1,5,-4,3], [-1,5,-4], [-1,5,2,3], [-1,5,2], [-1,5,3], [-1,5], [-1,-4,2,3], [-1,-4,2], [-1,-4,3], [-1,-4], [-1,2,3], [-1,2], [-1,3], [-1], [6,1,5,-4,2,3], [6,1,5,-4,2], [6,1,5,-4,3], [6,1,5,-4], [6,1,5,2,3], [6,1,5,2], [6,1,5,3], [6,1,5], [6,1,-4,2,3], [6,1,-4,2], [6,1,-4,3], [6,1,-4], [6,1,2,3], [6,1,2], [6,1,3], [6,1], [6,5,-4,2,3], [6,5,-4,2], [6,5,-4,3], [6,5,-4], [6,5,2,3], [6,5,2], [6,5,3], [6,5], [6,-4,2,3], [6,-4,2] ...]

Console

Reset Testcases



Run

Submit

C++

Auto



```
1 // Given an integer array nums of unique elements, return all possible subsets (the power set).The solution set must not contain duplicate subsets.
  Return the solution in any order.
2
3 #include <iostream>
4 #include <vector>
5
6 using namespace std;
```

Testcase

Result

Accepted Runtime: 3 ms



• Case 1 • Case 2 • Case 3 • Case 4 • Case 5

Input

nums =

[-1,-10,1,5,-4,2,3]



Output

[[-1,-10,1,5,-4,2,3], [-1,-10,1,5,-4,2], [-1,-10,1,5,-4,3], [-1,-10,1,5,-4], [-1,-10,1,5,2,3], [-1,-10,1,5,2], [-1,-10,1,5,3], [-1,-10,1,5], [-1,-10,1,-4,2,3], [-1,-10,1,-4,2], [-1,-10,1,-4,3], [-1,-10,1,-4], [-1,-10,1,2,3], [-1,-10,1,2], [-1,-10,1,3], [-1,-10,1], [-1,-10,5,-4,2,3], [-1,-10,5,-4,2], [-1,-10,5,-4,3], [-1,-10,5,-4], [-1,-10,5,2,3], [-1,-10,5,2], [-1,-10,5,3], [-1,-10,5], [-1,-10,-4,2,3], [-1,-10,-4,2], [-1,-10,-4,3], [-1,-10,-4], [-1,-10,2,3], [-1,-10,2], [-1,-10,3], [-1,-10], [-1,1,5,-4,2,3], [-1,1,5,-4,2], [-1,1,5,-4,3], [-1,1,5,-4], [-1,1,5,2,3], [-1,1,5,2], [-1,1,5,3], [-1,1,5], [-1,1,-4,2,3], [-1,1,-4,2], [-1,1,-4,3], [-1,1,-4], [-1,1,2,3], [-1,1,2], [-1,1,3], [-1,1], [-1,5,-4,2,3], [-1,5,-4,2], [-1,5,-4,3], [-1,5,-4], [-1,5,2,3], [-1,5,2], [-1,5,3], [-1,5], [-1,-4,2,3], [-1,-4,2], [-1,-4,3], [-1,-4], [-1,2,3], [-1,2], [-1,3], [-1], [-10,1,5,-4,2,3], [-10,1,5,-4,2], [-10,1,5,-4,3], [-10,1,5,-4], [-10,1,5,2,3], [-10,1,5,2], [-10,1,5,3], [-10,1,5], [-10,1,-4,2,3], [-10,1,-4,2], [-10,1,-4,3], [-10,1,-4], [-10,1,2,3], [-10,1,2], [-10,1,3], [-10,1]]...

Console

[Reset Testcases](#)

Run

Submit

C++

Auto

{} ↺ ⌘ ⚙ ↗

```
1 // Given an integer array nums of unique elements, return all possible subsets (the power set).The solution set must not contain duplicate subsets.  
   Return the solution in any order.  
2  
3 #include <iostream>  
4 #include <vector>  
5  
6 using namespace std;
```

Testcase

Result

Accepted Runtime: 3 ms

i

• Case 1 • Case 2 • Case 3 • Case 4 • Case 5

Input

```
nums =  
[-1,-10,1,5,-4,2,3,4,6,8]
```

Output

```
[[[-1,-10,1,5,-4,2,3,4,6,8], [-1,-10,1,5,-4,2,3,4,6], [-1,-10,1,5,-4,2,3,4,8], [-1,-10,1,5,-4,2,3,4], [-1,-10,1,5,-4,2,3,6,8], [-1,-  
10,1,5,-4,2,3,6], [-1,-10,1,5,-4,2,3,8], [-1,-10,1,5,-4,2,3], [-1,-10,1,5,-4,2,4,6,8], [-1,-10,1,5,-4,2,4,6], [-1,-10,1,5,-4,2,4,  
8], [-1,-10,1,5,-4,2,4], [-1,-10,1,5,-4,2,6,8], [-1,-10,1,5,-4,2,6], [-1,-10,1,5,-4,2,8], [-1,-10,1,5,-4,2], [-1,-10,1,5,-4,3,4,6,  
8], [-1,-10,1,5,-4,3,4,6], [-1,-10,1,5,-4,3,4,8], [-1,-10,1,5,-4,3,4], [-1,-10,1,5,-4,3,6,8], [-1,-10,1,5,-4,3,6], [-1,-10,1,5,-4,3,  
8], [-1,-10,1,5,-4,3], [-1,-10,1,5,-4,4,6,8], [-1,-10,1,5,-4,4,6], [-1,-10,1,5,-4,4,8], [-1,-10,1,5,-4,4], [-1,-10,1,5,-4,6,8], [-1,-  
10,1,5,-4,6], [-1,-10,1,5,-4,8], [-1,-10,1,5,-4], [-1,-10,1,5,2,3,4,6,8], [-1,-10,1,5,2,3,4,6], [-1,-10,1,5,2,3,4,8], [-1,-10,1,5,2,  
3,4], [-1,-10,1,5,2,3,6,8], [-1,-10,1,5,2,3,6], [-1,-10,1,5,2,3,8], [-1,-10,1,5,2,3], [-1,-10,1,5,2,4,6,8], [-1,-10,1,5,2,4,6], [-1,-  
10,1,5,2,4,8], [-1,-10,1,5,2,4], [-1,-10,1,5,2,6,8], [-1,-10,1,5,2,6], [-1,-10,1,5,2,8], [-1,-10,1,5,2], [-1,-10,1,5,3,4,6,8], [-...]]]
```

Console

Reset Testcases

⌘

Run

Submit

Description Discussion Solutions Submissions

× Close

✓ Accepted

Next question

• 79. Word Search

More challenges

• 90. Subsets II

• 320. Generalized Abbreviation

• 784. Letter Case Permutation

All statuses



All languages



Accepted

a few seconds ago

C++



Accepted

15 hours ago

C++



sakibskib

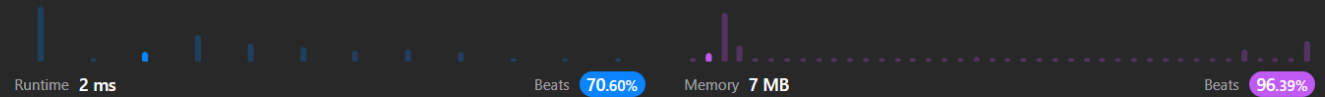
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Details

+ Solution

C++



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Notes

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Related Tags

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0/5

// Given an integer array nums of unique elements, return all possible subsets (the power set).The solution set must not contain duplic.

#include <iostream>
#include <vector>

using namespace std;

class Solution
{

Console ^



Run

Submit