

Problem 179: Largest Number

Problem Information

Difficulty: Medium

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Given a list of non-negative integers

nums

, arrange them such that they form the largest number and return it.

Since the result may be very large, so you need to return a string instead of an integer.

Example 1:

Input:

nums = [10,2]

Output:

"210"

Example 2:

Input:

nums = [3,30,34,5,9]

Output:

"9534330"

Constraints:

$1 \leq \text{nums.length} \leq 100$

$0 \leq \text{nums}[i] \leq 10$

9

Code Snippets

C++:

```
class Solution {  
public:  
    string largestNumber(vector<int>& nums) {  
  
    }  
};
```

Java:

```
class Solution {  
public String largestNumber(int[] nums) {  
  
}  
}
```

Python3:

```
class Solution:  
    def largestNumber(self, nums: List[int]) -> str:
```

Python:

```
class Solution(object):  
    def largestNumber(self, nums):  
        """  
        :type nums: List[int]
```

```
:rtype: str  
"""
```

JavaScript:

```
/**  
 * @param {number[]} nums  
 * @return {string}  
 */  
var largestNumber = function(nums) {  
  
};
```

TypeScript:

```
function largestNumber(nums: number[]): string {  
  
};
```

C#:

```
public class Solution {  
    public string LargestNumber(int[] nums) {  
  
    }  
}
```

C:

```
char* largestNumber(int* nums, int numsSize) {  
  
}
```

Go:

```
func largestNumber(nums []int) string {  
  
}
```

Kotlin:

```
class Solution {  
    fun largestNumber(nums: IntArray): String {  
        }  
    }  
}
```

Swift:

```
class Solution {  
    func largestNumber(_ nums: [Int]) -> String {  
        }  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn largest_number(nums: Vec<i32>) -> String {  
        }  
    }  
}
```

Ruby:

```
# @param {Integer[]} nums  
# @return {String}  
def largest_number(nums)  
  
end
```

PHP:

```
class Solution {  
  
    /**  
     * @param Integer[] $nums  
     * @return String  
     */  
    function largestNumber($nums) {  
  
    }  
}
```

Dart:

```
class Solution {  
    String largestNumber(List<int> nums) {  
  
    }  
}
```

Scala:

```
object Solution {  
    def largestNumber(nums: Array[Int]): String = {  
  
    }  
}
```

Elixir:

```
defmodule Solution do  
    @spec largest_number(list(integer)) :: String.t  
    def largest_number(nums) do  
  
    end  
end
```

Erlang:

```
-spec largest_number(list(integer)) -> unicode:unicode_binary().  
largest_number(Nums) ->  
.
```

Racket:

```
(define/contract (largest-number nums)  
  (-> (listof exact-integer?) string?)  
)
```

Solutions

C++ Solution:

```

/*
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public:
    string largestNumber(vector<int>& nums) {
        }

    };

```

Java Solution:

```

/**
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public String largestNumber(int[] nums) {
    }

}

```

Python3 Solution:

```

"""
Problem: Largest Number
Difficulty: Medium
Tags: array, string, greedy, sort

```

```

Approach: Use two pointers or sliding window technique
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach

"""

class Solution:

def largestNumber(self, nums: List[int]) -> str:
# TODO: Implement optimized solution
pass

```

Python Solution:

```

class Solution(object):
def largestNumber(self, nums):
"""

:type nums: List[int]
:rtype: str
"""

```

JavaScript Solution:

```

/**
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
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 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
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 */

/**
 * @param {number[]} nums
 * @return {string}
 */
var largestNumber = function(nums) {

};

```

TypeScript Solution:

```

/**
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
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 */

function largestNumber(nums: number[]): string {
}

```

C# Solution:

```

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 */

public class Solution {
    public string LargestNumber(int[] nums) {
        return string.Join("", nums);
    }
}

```

C Solution:

```

/*
 * Problem: Largest Number
 * Difficulty: Medium
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 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

```

```
*/  
  
char* largestNumber(int* nums, int numsSize) {  
  
}  

```

Go Solution:

```
// Problem: Largest Number  
// Difficulty: Medium  
// Tags: array, string, greedy, sort  
//  
// Approach: Use two pointers or sliding window technique  
// Time Complexity: O(n) or O(n log n)  
// Space Complexity: O(1) to O(n) depending on approach  
  
func largestNumber(nums []int) string {  
  
}
```

Kotlin Solution:

```
class Solution {  
    fun largestNumber(nums: IntArray): String {  
  
    }  
}
```

Swift Solution:

```
class Solution {  
    func largestNumber(_ nums: [Int]) -> String {  
  
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}
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Rust Solution:

```
// Problem: Largest Number  
// Difficulty: Medium  
// Tags: array, string, greedy, sort
```

```

// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
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impl Solution {
    pub fn largest_number(nums: Vec<i32>) -> String {
        ...
    }
}

```

Ruby Solution:

```

# @param {Integer[]} nums
# @return {String}
def largest_number(nums)

end

```

PHP Solution:

```

class Solution {

    /**
     * @param Integer[] $nums
     * @return String
     */
    function largestNumber($nums) {

    }
}

```

Dart Solution:

```

class Solution {
    String largestNumber(List<int> nums) {
        ...
    }
}

```

Scala Solution:

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object Solution {  
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