

Problem 556: Next Greater Element III

Problem Information

Difficulty: Medium

Acceptance Rate: 34.97%

Paid Only: No

Tags: Math, Two Pointers, String

Problem Description

Given a positive integer `n`, find _the smallest integer which has exactly the same digits existing in the integer_ `n` _and is greater in value than_ `n`. If no such positive integer exists, return `-1`.

Note that the returned integer should fit in **32-bit integer** , if there is a valid answer but it does not fit in **32-bit integer** , return `-1`.

Example 1:

Input: n = 12 **Output:** 21

Example 2:

Input: n = 21 **Output:** -1

Constraints:

* `1 <= n <= 231 - 1`

Code Snippets

C++:

```
class Solution {  
public:
```

```
int nextGreaterElement(int n) {  
    }  
};
```

Java:

```
class Solution {  
public int nextGreaterElement(int n) {  
    }  
}
```

Python3:

```
class Solution:  
    def nextGreaterElement(self, n: int) -> int:
```