556. Next Greater Element III

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Description HintsSubmissionsSolutions

- Total Accepted: **3196**
- Total Submissions: **11744**
- Difficulty: **Medium**
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Given a positive **32-bit** integer **n**, you need to find the smallest **32-bit** integer which has exactly the same digits existing in the integer **n** and is greater in value than n. If no such positive **32-bit** integer exists, you need to return -1.

Example 1:

Input: 12**Output:** 21

Example 2:

Input: 21**Output:** -1

```
class Solution {
public:
    int nextPermution(string &arr)
    {
        int lens = arr.size();
        int i=lens-2;
        while(i>=0 && arr[i+1]<=arr[i]) i--;
        if(i<0) return -1;
        int j=arr.size()-1;
        while(j>=0 && arr[j]<=arr[i]) j--;
        swap(arr[i],arr[j]);
        reverse(arr.begin()+i+1,arr.end());
```

```
        return 0;
    }

    int nextGreaterElement(int n) {
        stringstream ss; string s;
        ss<<n; ss>>s; ss.clear();
        int ret = nextPermution(s);
        if(ret==-1) return -1;
        if(s.size()>=10) return -1;
        return atoi(s.c_str());
    }
};
```