

Next Smaller Element

Same as Next Greater Element just change in while condition.

Code :

```
#include <bits/stdc++.h>
vector<int> nextSmallerElement(vector<int> &arr, int n)
{
    // Write your code here.
    stack<int> s;
    vector<int> ans;
    for(int i=n-1;i>=0;i--)
    {
        if(s.empty())
        {
            ans.push_back(-1);
        }
        else
        {
            while(!s.empty() && s.top()>=arr[i])
            {
                s.pop();
            }
            if(!s.empty())
            {
                ans.push_back(s.top());
            }
            else{
                ans.push_back(-1);
            }
        }
        s.push(arr[i]);
    }
    reverse(ans.begin(),ans.end());
    return ans;
}
```

- Time Complexity : $O(N)$
- Space Complexity : $O(N)$