

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 #include <vector>
4 #include <unordered_map>
5 using namespace std;
6
7 class MinMaxStack {
8 public:
9     vector<unordered_map<string, int>> minMaxStack = {};
10    vector<int> stack = {};
11
12    // O(1) time | O(1) space
13    int peek() { return stack[stack.size() - 1]; }
14
15    // O(1) time | O(1) space
16    int pop() {
17        minMaxStack.pop_back();
18        int result = stack[stack.size() - 1];
19        stack.pop_back();
20        return result;
21    }
22
23    // O(1) time | O(1) space
24    void push(int number) {
25        unordered_map<string, int> newMinMax = {{"min", number}, {"max", number}};
26        if (minMaxStack.size()) {
27            unordered_map<string, int> lastMinMax =
28                minMaxStack[minMaxStack.size() - 1];
29            newMinMax["min"] = min(lastMinMax["min"], number);
30            newMinMax["max"] = max(lastMinMax["max"], number);
31        }
32        minMaxStack.push_back(newMinMax);
33        stack.push_back(number);
34    }
35
36    // O(1) time | O(1) space
37    int getMin() { return minMaxStack[minMaxStack.size() - 1]["min"]; }
38
39    // O(1) time | O(1) space
40    int getMax() { return minMaxStack[minMaxStack.size() - 1]["max"]; }
41};
```

Solution 1 Solution 2 Solution 3

```
1 using namespace std;
2
3 // Feel free to add new properties and methods to the class.
4 class MinMaxStack {
5 public:
6     int peek() {
7         // Write your code here.
8         return -1;
9     }
10
11    int pop() {
12        // Write your code here.
13        return -1;
14    }
15
16    void push(int number) {
17        // Write your code here.
18    }
19
20    int getMin() {
21        // Write your code here.
22        return -1;
23    }
24
25    int getMax() {
26        // Write your code here.
27        return -1;
28    }
29 };
30
```

Run or submit code when you're ready.