

Prompt	Scratchpad	Our Solution(s)	Video Explanation	Run Code	Your Solutions	Run Code
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Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 using System;
4 using System.Collections.Generic;
5
6 public class Program {
7     public class MinMaxStack {
8         List<Dictionary<string, int> > minMaxStack = new List<Dictionary<string, int>
9         List<int> stack = new List<int>();
10
11         // O(1) time | O(1) space
12         public int Peek() {
13             return stack[stack.Count - 1];
14         }
15
16         // O(1) time | O(1) space
17         public int Pop() {
18             minMaxStack.RemoveAt(minMaxStack.Count - 1);
19             var val = stack[stack.Count - 1];
20             stack.RemoveAt(stack.Count - 1);
21             return val;
22         }
23
24         // O(1) time | O(1) space
25         public void Push(int number) {
26             Dictionary<string, int> newMinMax = new Dictionary<string, int>();
27             newMinMax.Add("min", number);
28             newMinMax.Add("max", number);
29             if (minMaxStack.Count > 0) {
30                 Dictionary<string, int> lastMinMax = new Dictionary<string, int>(
31                     minMaxStack[minMaxStack.Count - 1]
32                 );
33                 newMinMax["min"] = Math.Min(lastMinMax["min"], number);
34                 newMinMax["max"] = Math.Max(lastMinMax["max"], number);
35             }
36             minMaxStack.Add(newMinMax);
37             stack.Add(number);
38         }
39
40         // O(1) time | O(1) space
41         public int GetMin() {
42             return minMaxStack[minMaxStack.Count - 1]["min"];
43         }
44
45         // O(1) time | O(1) space
46         public int GetMax() {
47             return minMaxStack[minMaxStack.Count - 1]["max"];
48         }
49     }
50 }
51
```

Solution 1 Solution 2 Solution 3

```
1 public class Program {
2     // Feel free to add new properties and methods to the class.
3     public class MinMaxStack {
4         public int Peek() {
5             // Write your code here.
6             return -1;
7         }
8
9         public int Pop() {
10             // Write your code here.
11             return -1;
12         }
13
14         public void Push(int number) {
15             // Write your code here.
16         }
17
18         public int GetMin() {
19             // Write your code here.
20             return -1;
21         }
22
23         public int GetMax() {
24             // Write your code here.
25             return -1;
26         }
27     }
28 }
29
30
31
32
```

Run or submit code when you're ready.