Run Code

Our Solution(s)

Solution 1

Run Code

Your Solutions

Solution 1 Solution 2 Solution 3

```
package main

func HeapSort(array []int) []int {
    // Write your code here.
    return nil
}
```

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
3 package main
 5  // Best: O(nlog(n)) time | O(1) space
 6 // Average: O(nlog(n)) time | O(1) space
 7 // Worst: O(nlog(n)) time | O(1) space
 8 func HeapSort(array []int) []int {
     buildMaxHeap(array)
     for endIndex := len(array) - 1; endIndex >= 1; endIndex-- {
10
11
       swap(0, endIndex, array)
12
       siftDown(0, endIndex-1, array)
13
14
     return array
15 }
16
17 func buildMaxHeap(array []int) {
18
     first := (len(array) - 2) / 2
19
     for currentIndex := first + 1; currentIndex >= 0; currentIndex-- {
20
       siftDown(currentIndex, len(array)-1, array)
21
22 }
23
24 func siftDown(currentIndex int, endIndex int, heap []int) {
25
     childOneIndex := currentIndex*2 + 1
26
     for childOneIndex <= endIndex {</pre>
27
       childTwoIndex := -1
28
       if currentIndex*2+2 <= endIndex {</pre>
29
         childTwoIndex = currentIndex*2 + 2
30
31
        indexToSwap := childOneIndex
       if childTwoIndex > -1 && heap[childTwoIndex] > heap[childOneIndex]
         indexToSwap = childTwoIndex
33
```

Run or submit code when you're ready.