Run Code

Our Solution(s)

```
Run Code
```

```
Your Solutions
```

```
Solution 1 Solution 2
 1 # Copyright © 2020 AlgoExpert, LLC. All rights reserved.
   # Best: O(nlog(n)) time | O(n) space
4 # Average: O(nlog(n)) time | O(n) space
 5 # Worst: O(nlog(n)) time | O(n) space
 6 def mergeSort(array):
       if len(array) <= 1:</pre>
           return array
9
       auxiliaryArray = array[:]
       mergeSortHelper(array, 0, len(array) - 1, auxiliaryArray)
10
11
       return array
12
13
14 def mergeSortHelper(mainArray, startIdx, endIdx, auxiliaryArray):
       if startIdx == endIdx:
16
          return
17
       middleIdx = (startIdx + endIdx) // 2
18
       \verb|mergeSortHelper(auxiliaryArray, startIdx, middleIdx, mainArray)|\\
19
       mergeSortHelper(auxiliaryArray, middleIdx + 1, endIdx, mainArray)
20
        doMerge(mainArray, startIdx, middleIdx, endIdx, auxiliaryArray)
21
22
23 def doMerge(mainArray, startIdx, middleIdx, endIdx, auxiliaryArray):
       k = startIdx
       i = startIdx
26
       j = middleIdx + 1
27
       while i <= middleIdx and j <= endIdx:</pre>
           if auxiliaryArray[i] <= auxiliaryArray[j]:</pre>
28
29
               mainArray[k] = auxiliaryArray[i]
30
               i += 1
31
               mainArray[k] = auxiliaryArray[j]
```

```
1 def mergeSort(array):
2  # Write your code here.
3  pass
4
```

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j += 1

### Description of the property of the propert

Run or submit code when you're ready.