Our Solution(s) Run Code

Solution 1 Solution 2

```go
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package main

// Best: O(nlog(n)) time | O(n) space
// Average: O(nlog(n)) time | O(n) space
// Worst: O(nlog(n)) time | O(n) space
func MergeSort(array []int) []int {
  if len(array) <= 1 {
    return array
  }
  auxiliaryArray := make([]int, len(array))
  copy(auxiliaryArray, array)
  mergeSortHelper(array, 0, len(array)-1, auxiliaryArray)
  return array
}

func mergeSortHelper(mainArray []int, startIdx, endIdx int, auxiliaryA
  if startIdx == endIdx {
    return
  }
  middleIdx := (startIdx + endIdx) / 2
  mergeSortHelper(auxiliaryArray, startIdx, middleIdx, mainArray)
  mergeSortHelper(auxiliaryArray, middleIdx+1, endIdx, mainArray)
  doMerge(mainArray, startIdx, middleIdx, endIdx, auxiliaryArray)
}

func doMerge(mainArray []int, startIdx, middleIdx, endIdx int, auxilia
  k := startIdx
  i := startIdx
  j := middleIdx + 1
  for i <= middleIdx && j <= endIdx {
    if auxiliaryArray[i] <= auxiliaryArray[j] {
```

Your Solutions Run Code

Solution 1 Solution 2 Solution 3

```go
package main

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

```

Our Tests

Custom Output Submit Code

Run or submit code when you're ready.