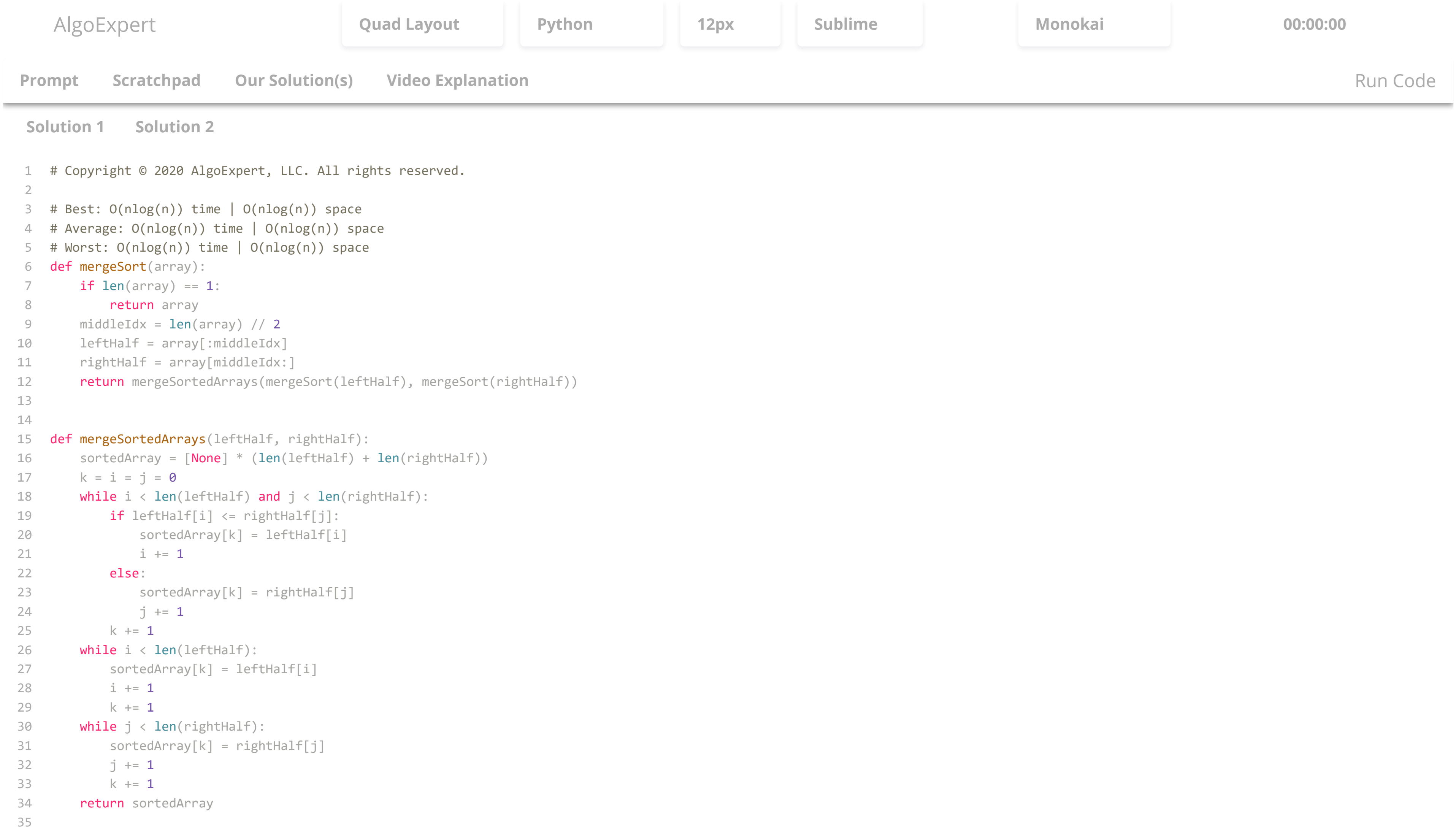

```python
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# Best: O(nlog(n)) time | O(nlog(n)) space
# Average: O(nlog(n)) time | O(nlog(n)) space
# Worst: O(nlog(n)) time | O(nlog(n)) space
def mergeSort(array):
    if len(array) == 1:
        return array
    middleIdx = len(array) // 2
    leftHalf = array[:middleIdx]
    rightHalf = array[middleIdx:]
    return mergeSortedArrays(mergeSort(leftHalf), mergeSort(rightHalf))


def mergeSortedArrays(leftHalf, rightHalf):
    sortedArray = [None] * (len(leftHalf) + len(rightHalf))
    k = i = j = 0
    while i < len(leftHalf) and j < len(rightHalf):
        if leftHalf[i] <= rightHalf[j]:
            sortedArray[k] = leftHalf[i]
            i += 1
        else:
            sortedArray[k] = rightHalf[j]
            j += 1
        k += 1
    while i < len(leftHalf):
        sortedArray[k] = leftHalf[i]
        i += 1
        k += 1
    while j < len(rightHalf):
        sortedArray[k] = rightHalf[j]
        j += 1
        k += 1
    return sortedArray
```