AlgoExpert Quad Layout Swift 14px Sublime Monokai 00:00:0

Our Solution(s) Run Code

Solution 1 Solution 2

```swift
// Copyright © 2020 AlgoExpert, LLC. All rights reserved.

class Program {
    // O(nlogn) time | O(n) space
    func longestIncreasingSubsequence(_ array: [Int]) -> [Int] {
        var length = 0
        var indices: [Int?] = Array(repeating: nil, count: array.coun
        var sequences: [Int?] = Array(repeating: nil, count: array.co

        for i in 0 ..< array.count {
            var startIndex = 1
            var endIndex = length
            let number = array[i]
            let newLength = binarySearch(&startIndex, &endIndex, indic

            indices[newLength] = i
            sequences[i] = indices[newLength - 1]
            length = max(length, newLength)
        }

        return buildSequence(array, sequences, &indices[length])
    }

    func binarySearch(_ startIndex: inout Int, _ endIndex: inout Int,
        if startIndex > endIndex {
            return startIndex
        }

        var middleIndex = Double(startIndex + endIndex) / 2
        middleIndex = middleIndex.rounded(.down)
        let intMiddle = Int(middleIndex)

        if let index = indices[intMiddle] {
```

Your Solutions Run Code

Solution 1 Solution 2 Solution 3

```swift
class Program {
    func longestIncreasingSubsequence(_ array: [Int]) -> [Int] {
        // Write your code here.
        return []
    }
}

```

Our Tests

[illegible]

Custom Output Submit Code

Run or submit code when you're ready.