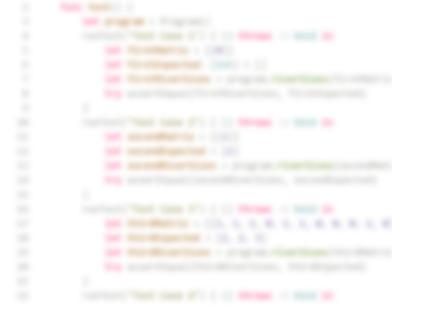Our Solution(s)   Run Code

Solution 1

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

class Program {
    // O(wh) time | O(wh) space
    func riverSizes(_ matrix: [[Int]]) -> [Int] {
        var sizes: [Int] = []
        var visited: [[Bool]] = matrix.map { $0.map { $0 == 2 } }
        for var i in 0 ..< matrix.count {
            for var j in 0 ..< matrix[i].count {
                if visited[i][j] { continue }
                traverseNode(i, j, matrix, &visited, &sizes)
            }
        }
        return sizes
    }

    func traverseNode(_ k: Int, _ l: Int, _ matrix: [[Int]], _ v
        var i = k
        var j = l
        var currentRiverSize = 0
        var nodesToExplore = [[i, j]]
        while nodesToExplore.count > 0 {
            let currentNode = nodesToExplore.popLast()!

            i = currentNode[0]
            j = currentNode[1]
            if visited[i][j] { continue }
            visited[i][j] = true

            if matrix[i][j] == 0 { continue }
            currentRiverSize += 1

            let unvisitedNeighbors = getUnvisitedNeighbors(i, j,
```

Your Solutions   Run Code

Solution 1   Solution 2   Solution 3

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

Our Tests   Custom Output   Submit Code

Run or submit code when you're ready.