

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Program {
4     class Chain {
5         var nextString: String
6         var maxChainLength: Int
7
8         init(_ nextString: String, _ maxChainLength: Int) {
9             self.nextString = nextString
10            self.maxChainLength = maxChainLength
11        }
12    }
13
14    // O(n * m^2 + nlog(n)) time | O(nm) space - where n is the number
15    // m is the length of the longest string
16    func longestStringChain(_ strings: [String]) -> [String] {
17        // For every string, imagine the longest string chain that sta
18        // Set up every string to point to the next string in its resp
19        // string chain. Also keep track of the lengths of these longe
20        var stringChains = [String: Chain]()
21        for str in strings {
22            stringChains[str] = Chain("", 1)
23        }
24
25        // Sort the strings based on their length so that whenever we
26        // string (as we iterate through them from left to right), we
27        // already have computed the longest string chains of any smal
28        let sortedStrings = strings.sorted {
29            $0.length < $1.length
30        }
31
32        for str in sortedStrings {
33            findLongestStringChain(str, &stringChains)
```

Our Tests

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // Test 1
4 func test1() {
5     let strings = ["a", "b", "c", "d", "e", "f", "g", "h", "i", "j", "k", "l", "m", "n", "o", "p", "q", "r", "s", "t", "u", "v", "w", "x", "y", "z"]
6     let result = longestStringChain(strings)
7     print(result)
```

Solution 1 Solution 2 Solution 3

```
1 class Program {
2     func longestStringChain(_ strings: [String]) -> [String] {
3         // Write your code here.
4         return []
5     }
6 }
7
```

Custom Output

Submit Code

```

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```

Run or submit code when you're ready.