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**Your Solutions** 

Run Code

Our Solution(s) Run Code

```
Solution 1
 1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
   import java.util.*;
   class Program {
      public static class stringChain {
        String nextString;
 9
        Integer maxChainLength;
10
11
        public stringChain(String nextString, Integer maxChainLength) {
12
          this.nextString = nextString;
          this.maxChainLength = maxChainLength;
14
15
      }
16
17
      // O(n * m^2 + nlog(n)) time | O(nm) space - where n is the number o
18
      \ensuremath{//} and m is the length of the longest string
19
      public static List<String> longestStringChain(List<String> strings)
20
        \ensuremath{//} For every string, imagine the longest string chain that starts
21
        \ensuremath{//} Set up every string to point to the next string in its respecti
        // string chain. Also keep track of the lengths of these longest s
        // chains.
24
        Map<String, stringChain> stringChains = new HashMap<String, string</pre>
        for (String string : strings) {
26
          stringChains.put(string, new stringChain("", 1));
27
28
29
        // Sort the strings based on their length so that whenever we visi
```

 $\ensuremath{//}$  string (as we iterate through them from left to right), we can

// already have computed the longest string chains of any smaller List<String> sortedStrings = new ArrayList<String>(strings);

sortedStrings.sort((a, b) -> a.length() - b.length());

 Our Tests
 Custom Output
 Submit Code

Run or submit code when you're ready.