

AlgoExpert

Quad Layout

Swift

12px

Sublime

Monokai

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PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1Solution 2Solution 3

1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Program {
4 // O(bns) time | O(n) space
5 func multiStringSearch(_ bigString: String, _ smallStrings: [String]) -> [Bool] {
6 return smallStrings.map { isInBigString(\$0, bigString) }
7 }
8
9 func isInBigString(_ smallString: String, _ bigString: String) -> Bool {
10 for i in 0 ..< bigString.count {
11 if i + smallString.count > bigString.count {
12 break
13 }
14
15 if isInBigStringHelper(i, smallString, bigString) {
16 return true
17 }
18 }
19
20 return false
21 }
22
23 func isInBigStringHelper(_ startIndex: Int, _ smallString: String, _ bigString: String) -> Bool {
24 var leftSmallIndex = 0
25 var rightSmallIndex = smallString.count - 1
26
27 var leftBigIndex = startIndex
28 var rightBigIndex = startIndex + smallString.count - 1
29
30 while leftBigIndex < rightBigIndex {
31 let leftSmallStringIndex = smallString.index(smallString.startIndex, offsetBy: leftSmallIndex)
32 let rightSmallStringIndex = smallString.index(smallString.startIndex, offsetBy: rightSmallIndex)
33
34 let leftBigStringIndex = bigString.index(bigString.startIndex, offsetBy: leftBigIndex)
35 let rightBigStringIndex = bigString.index(bigString.startIndex, offsetBy: rightBigIndex)
36
37 if smallString[leftSmallStringIndex] != bigString[leftBigStringIndex] || smallString[rightSmallStringIndex] != bigString[rightBigStringIndex] {
38 return false
39 }
40
41 leftSmallIndex += 1
42 rightSmallIndex -= 1
43 leftBigIndex += 1
44 rightBigIndex -= 1
45 }
46
47 return true
48 }
49 }
50

