AlgoExpert Quad Layout Swift 12px Sublime Monokai 00:00:00

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

```
1\, // Copyright @ 2020 AlgoExpert, LLC. All rights reserved.
   class Program {
        // O(n^3 + m) time | O(n + m) space
        func numbersInPi(_ pi: String, _ favoriteNumbers: [String]) -> Int {
            var numbersDictionary = [String: Bool]()
            for number in favoriteNumbers {
 8
 9
                 \verb|numbersDictionary[number]| = \verb|true||
10
11
12
            var cache = [Int: Int]()
13
14
            for i in stride(from: pi.count - 1, through: 0, by: -1) {
15
                 getMinimumNumberOfSpaces(pi, numbersDictionary, &cache, i)
16
17
            if cache[0] == Int(Int32.max) {
18
19
                return -1
20
             } else {
21
                return cache[0]!
22
23
24
        func getMinimumNumberOfSpaces(_ pi: String, _ numbersDictionary: [String: Bool], _ cache: inout [Int: Int], _ index: Int) -> Int {
25
26
            if index == pi.count {
27
                return -1
28
29
            if let minimumNumberOfSpaces = cache[index] {
30
31
                return minimumNumberOfSpaces
32
33
            var minimumNumberOfSpaces = Int(Int32.max)
34
35
36
            for i in index ...<br/> pi.count {
37
                 let startingIndex = pi.index(pi.startIndex, offsetBy: index)
38
39
                 let endingIndex = pi.index(pi.startIndex, offsetBy: i + 1)
40
                 let prefix = String(pi[startingIndex ..< endingIndex])</pre>
41
42
                 if numbersDictionary.keys.contains(prefix) {
43
44
                     \textbf{let minimumNumberOfSpacesInSuffix} = \texttt{getMinimumNumberOfSpaces}(\texttt{pi, numbersDictionary, \& cache, i + 1})
45
                     \verb|minimumNumberOfSpaces| = \verb|min(minimumNumberOfSpaces|, \verb|minimumNumberOfSpaces| InSuffix + 1)|
46
47
48
49
50
            cache[index] = minimumNumberOfSpaces
51
52
            \textcolor{red}{\textbf{return}} \text{ minimumNumberOfSpaces}
53
54 }
```

Solution 1

55

Solution 2