

PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1Solution 2Solution 3

```
1  # Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3  # O(b^2 + ns) time | O(b^2 + n) space
4  def multiStringSearch(bigString, smallStrings):
5      modifiedSuffixTrie = ModifiedSuffixTrie(bigString)
6      return [modifiedSuffixTrie.contains(string) for string in smallStrings]
7
8
9  class ModifiedSuffixTrie:
10     def __init__(self, string):
11         self.root = {}
12         self.populateModifiedSuffixTrieFrom(string)
13
14     def populateModifiedSuffixTrieFrom(self, string):
15         for i in range(len(string)):
16             self.insertSubstringStartingAt(i, string)
17
18     def insertSubstringStartingAt(self, i, string):
19         node = self.root
20         for j in range(i, len(string)):
21             letter = string[j]
22             if letter not in node:
23                 node[letter] = {}
24             node = node[letter]
25
26     def contains(self, string):
27         node = self.root
28         for letter in string:
29             if letter not in node:
30                 return False
31             node = node[letter]
32         return True
33
```