

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 package main
4
5 // O(n + m) time | O(m) space
6 func KnuthMorrisPrattAlgorithm(str, substr string) bool {
7     pattern := buildPattern(substr)
8     return doesMatch(str, substr, pattern)
9 }
10
11 func buildPattern(substr string) []int {
12     pattern := make([]int, len(substr))
13     for i := range substr {
14         pattern[i] = -1
15     }
16     i, j := 1, 0
17     for i < len(substr) {
18         if substr[i] == substr[j] {
19             pattern[i] = j
20             i, j = i+1, j+1
21         } else if j > 0 {
22             j = pattern[j-1] + 1
23         } else {
24             i += 1
25         }
26     }
27     return pattern
28 }
29
30 func doesMatch(str, substr string, pattern []int) bool {
31     i, j := 0, 0
32     for i+len(substr)-j <= len(str) {
33         if str[i] == substr[j] {
```

Solution 1 Solution 2 Solution 3

```
1 package main
2
3 func KnuthMorrisPrattAlgorithm(str, substr string) bool {
4     // Write your code here.
5     return false
6 }
7
```

Our Tests

Custom Output

Submit Code

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