

Prompt	Scratchpad	Our Solution(s)	Video Explanation	Run Code
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Solution 1

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1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 package main
4
5 import "strings"
6
7 // O(n) time | O(n) space - where n is the length of the path
8 ▾ func ShortenPath(path string) string {
9     startsWithSlash := path[0] == '/'
10    splits := strings.Split(path, "/")
11    tokens := []string{}
12    ▾ for _, token := range splits {
13        ▾ if isImportantToken(token) {
14            tokens = append(tokens, token)
15        }
16    }
17
18    stack := []string{}
19    ▾ if startsWithSlash {
20        stack = append(stack, "")
21    }
22    ▾ for _, token := range tokens {
23        ▾ if token == ".." {
24            ▾ if len(stack) == 0 || stack[len(stack)-1] == ".." {
25                stack = append(stack, token)
26            } else if stack[len(stack)-1] != "" {
27                stack = stack[:len(stack)-1]
28            }
29        } else {
30            stack = append(stack, token)
31        }
32    }
33
34    ▾ if len(stack) == 1 && stack[0] == "" {
35        return "/"
36    }
37    return strings.Join(stack, "/")
38 }
39
40 ▾ func isImportantToken(token string) bool {
41     return len(token) > 0 && token != "."
42 }
43
```

