

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 // O(n) time | O(n) space - where n is the length of the path
4 ▾ function shortenPath(path) {
5     const startsWithSlash = path[0] === '/';
6     const tokens = path.split('/').filter(isImportantToken);
7     const stack = [];
8     if (startsWithSlash) stack.push('');
9     ▾ for (const token of tokens) {
10     ▾     if (token === '..') {
11     ▾         if (stack.length === 0 || stack[stack.length - 1] === '..') {
12             stack.push(token);
13     ▾         } else if (stack[stack.length - 1] !== '') {
14             stack.pop();
15         }
16     ▾     } else {
17         stack.push(token);
18     }
19 }
20
21 if (stack.length === 1 && stack[0] === '') return '/';
22 return stack.join('/');
23 }
24
25 ▾ function isImportantToken(token) {
26     return token.length > 0 && token !== '.';
27 }
28
29 exports.shortenPath = shortenPath;
30
```

