

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1Solution 2Solution 3Solution 4

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(nm*min(n, m)) time | O(nm*min(n, m)) space
4 function longestCommonSubsequence(str1, str2) {
5   const lcs = [];
6   for (let i = 0; i < str2.length + 1; i++) {
7     const row = new Array(str1.length + 1).fill([]);
8     lcs.push(row);
9   }
10  for (let i = 1; i < str2.length + 1; i++) {
11    for (let j = 1; j < str1.length + 1; j++) {
12      if (str2[i - 1] === str1[j - 1]) {
13        lcs[i][j] = lcs[i - 1][j - 1].concat(str2[i - 1]);
14      } else {
15        lcs[i][j] = lcs[i - 1][j].length > lcs[i][j - 1].length ? lcs[i - 1][j] : lcs[i][j - 1];
16      }
17    }
18  }
19  return lcs[str2.length][str1.length];
20 }
21
22 exports.longestCommonSubsequence = longestCommonSubsequence;
23
```

Solution 1Solution 2Solution 3

```
1 function longestCommonSubsequence(str1, str2) {
2   // Write your code here.
3 }
4
5 // Do not edit the line below.
6 exports.longestCommonSubsequence = longestCommonSubsequence;
7
```

Our Tests

```
1 // Test Case 1: str1 = "abcde", str2 = "ace"
2 // Expected: "ace"
3
4 // Test Case 2: str1 = "abcde", str2 = "fghij"
5 // Expected: ""
6
7 // Test Case 3: str1 = "abcde", str2 = "abcde"
8 // Expected: "abcde"
9
10 // Test Case 4: str1 = "abcde", str2 = "edcba"
11 // Expected: ""
12
```

Custom Output

Submit Code

```
1
2
3
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12
```

```
10 # Test Case 40 - Success (2/2)
11 # Test Case 40: Input: [1, 2, 3, 4, 5], [10, 20, 30, 40, 50]
12 # Expected Output: [10, 20, 30, 40, 50]
13 # Test Case 40: Success (2/2)
14 # Test Case 41 - Success (2/2)
15 # Test Case 41: Input: [1, 2, 3, 4, 5], [10, 20, 30, 40, 50]
16 # Expected Output: [10, 20, 30, 40, 50]
17 # Test Case 41: Success (2/2)
18 # Test Case 42 - Success (2/2)
19 # Test Case 42: Input: [1, 2, 3, 4, 5], [10, 20, 30, 40, 50]
20 # Expected Output: [10, 20, 30, 40, 50]
21 # Test Case 42: Success (2/2)
22 # Test Case 43 - Success (2/2)
23 # Test Case 43: Input: [1, 2, 3, 4, 5], [10, 20, 30, 40, 50]
24 # Expected Output: [10, 20, 30, 40, 50]
25 # Test Case 43: Success (2/2)
```

Run or submit code when you're ready.