AlgoExpert   Quad Layout   C++   14px   Sublime   Monokai   00:00:0

Our Solution(s)   Run Code

Solution 1   Solution 2   Solution 3   Solution 4

```cpp
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#include <vector>
using namespace std;

vector<char> buildSequence(vector<vector<int>> lengths, string str);

// O(nm) time | O(nm) space
vector<char> longestCommonSubsequence(string str1, string str2) {
  vector<vector<int>> lengths(str2.length() + 1,
                              vector<int>(str1.length() + 1, 0));
  for (int i = 1; i < str2.length() + 1; i++) {
    for (int j = 1; j < str1.length() + 1; j++) {
      if (str2[i - 1] == str1[j - 1]) {
        lengths[i][j] = lengths[i - 1][j - 1] + 1;
      } else {
        lengths[i][j] = max(lengths[i - 1][j], lengths[i][j - 1]);
      }
    }
  }
  return buildSequence(lengths, str1);
}

vector<char> buildSequence(vector<vector<int>> lengths, string str) {
  vector<char> sequence;
  int i = lengths.size() - 1;
  int j = lengths[0].size() - 1;
  while (i != 0 && j != 0) {
    if (lengths[i][j] == lengths[i - 1][j]) {
      i--;
    } else if (lengths[i][j] == lengths[i][j - 1]) {
      j--;
    } else {
```

Your Solutions   Run Code

Solution 1   Solution 2   Solution 3

```cpp
#include <vector>
using namespace std;

vector<char> longestCommonSubsequence(string str1, string str2) {
  // Write your code here.
  return {};
}

```

Our Tests

[illegible]

Custom Output   Submit Code

```
[illegible]
```

Run or submit code when you're ready.