

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1Solution 2

```
1 # Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 # O(n^2) time | O(n) space
4 def longestIncreasingSubsequence(array):
5     sequences = [None for x in array]
6     lengths = [1 for x in array]
7     maxLengthIdx = 0
8     for i in range(len(array)):
9         currentNum = array[i]
10        for j in range(0, i):
11            otherNum = array[j]
12            if otherNum < currentNum and lengths[j] + 1 >= lengths[i]:
13                lengths[i] = lengths[j] + 1
14                sequences[i] = j
15            if lengths[i] >= lengths[maxLengthIdx]:
16                maxLengthIdx = i
17    return buildSequence(array, sequences, maxLengthIdx)
18
19
20 def buildSequence(array, sequences, currentIndex):
21     sequence = []
22     while currentIndex is not None:
23         sequence.append(array[currentIndex])
24         currentIndex = sequences[currentIndex]
25     return list(reversed(sequence))
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```

Solution 1Solution 2Solution 3

```
1 def longestIncreasingSubsequence(array):
2     # Write your code here.
3     pass
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```

Our Tests

Custom Output

Submit Code

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```
18 # Add code to test()
19 test = test_function(original_function)(1, 2, 3)
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21 # Add code to test()
22 test = test_function(original_function)(1, 2, 3)
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24 # Add code to test()
25 test = test_function(original_function)(1, 2, 3)
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27 # Add code to test()
28 test = test_function(original_function)(1, 2, 3)
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30 # Add code to test()
31 test = test_function(original_function)(1, 2, 3)
```

Run or submit code when you're ready.