

Our Solution(s)	Run Code	Your Solutions	Run Code
<div>Solution 1</div> <pre>1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved. 2 3 class Program { 4 class AncestralTree { 5 var name = String() 6 var ancestor: AncestralTree? 7 8 init(name: String) { 9 self.name = name 10 ancestor = nil 11 } 12 } 13 14 // O(d) time O(1) space 15 func getYoungestCommonAncestor(_ topAncestor: AncestralTree?, descendantOne: AncestralTree?, descendantTwo: AncestralTree?) -> AncestralTree? { 16 var firstDescendant = descendantOne 17 var secondDescendant = descendantTwo 18 19 let depthOne = getDescendantDepth(&descendantOne, topAncestor) 20 let depthTwo = getDescendantDepth(&descendantTwo, topAncestor) 21 22 if depthOne > depthTwo { 23 var difference = depthOne - depthTwo 24 return backtrackAncestralTree(&firstDescendant, &secondDescendant, &difference) 25 } else { 26 var difference = depthTwo - depthOne 27 return backtrackAncestralTree(&secondDescendant, &firstDescendant, &difference) 28 } 29 } 30 31 func getDescendantDepth(_ descendant: inout AncestralTree?, topAncestor: AncestralTree?) -> Int { 32 var depth = 0 33 34 while descendant != topAncestor { 35 depth += 1 36 descendant = descendant?.ancestor 37 } 38 39 return depth 40 } 41 42 func backtrackAncestralTree(_ lowerDescendant: inout AncestralTree?, higherDescendant: AncestralTree?, difference: Int) -> AncestralTree? { 43 while difference > 0 { 44 difference -= 1 45 lowerDescendant = lowerDescendant?.ancestor 46 } 47 48 while lowerDescendant != higherDescendant {</pre>		<div>Solution 1 Solution 2 Solution 3</div> <pre>1 class Program { 2 // This is an input class. Do not edit. 3 class AncestralTree { 4 var name = String() 5 var ancestor: AncestralTree? 6 7 init(name: String) { 8 self.name = name 9 ancestor = nil 10 } 11 } 12 13 func getYoungestCommonAncestor(_ topAncestor: AncestralTree?, descendantOne: AncestralTree?, descendantTwo: AncestralTree?) -> AncestralTree? { 14 // Write your code here. 15 return AncestralTree(name: "replace me") // replace me 16 } 17 } 18</pre>	
		Custom Output	Submit Code

Run or submit code when you're ready.