

Solution 1

Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Program {
4     class LinkedList {
5         var value: Int
6         var next: LinkedList?
7
8         init(value: Int) {
9             self.value = value
10        }
11    }
12
13    // O(n + m) time | O(1) space - where n is the number of nodes in the first
14    // Linked List and m is the number of nodes in the second Linked List
15    func mergeLinkedLists(_ headOne: LinkedList, _ headTwo: LinkedList) -> LinkedList {
16        var p1 = headOne as LinkedList?
17        var p2 = headTwo as LinkedList?
18        var p1Prev: LinkedList?
19
20        while p1 != nil, p2 != nil {
21            if p1!.value < p2!.value {
22                p1Prev = p1
23                p1 = p1!.next
24            } else {
25                if p1Prev != nil {
26                    p1Prev!.next = p2
27                }
28                p1Prev = p2
29                p2 = p2!.next
30                p1Prev!.next = p1
31            }
32        }
33
34        if p1 == nil, p1Prev != nil {
35            p1Prev!.next = p2
36        }
37
38        if headOne.value < headTwo.value {
39            return headOne
40        }
41        return headTwo
42    }
43 }
44
```

