

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(n) time | O(1) space
4 function iterativeInOrderTraversal(tree, callback) {
5   let previousNode = null;
6   let currentNode = tree;
7   while (currentNode !== null) {
8     let nextNode;
9     if (previousNode === null || previousNode === currentNode.parent) {
10      if (currentNode.left !== null) {
11        nextNode = currentNode.left;
12      } else {
13        callback(currentNode);
14        nextNode = currentNode.right !== null ? currentNode.right : currentNode.parent;
15      }
16    } else if (previousNode === currentNode.left) {
17      callback(currentNode);
18      nextNode = currentNode.right !== null ? currentNode.right : currentNode.parent;
19    } else {
20      nextNode = currentNode.parent;
21    }
22    previousNode = currentNode;
23    currentNode = nextNode;
24  }
25 }
26
27 exports.iterativeInOrderTraversal = iterativeInOrderTraversal;
28
```

