

Our Solution(s)Run Code

Solution 1Solution 2

1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.

2

3 class Program {

4 class BST {

5 var value: Int

6 var left: BST?

7 var right: BST?

8

9 init(value: Int) {

10 self.value = value

11 left = nil

12 right = nil

13 }

14

15 // Average: O(log(n)) time | O(1) space

16 // Worst: O(n) time | O(1) space

17 func insert(value: Int) -> BST {

18 var currentNode: BST? = self

19

20 while true {

21 if let node = currentNode, value < node.value {

22 if node.left === nil {

23 node.left = BST(value: value)

24 break

25 } else {

26 currentNode = node.left

27 }

28 } else if let node = currentNode {

29 if node.right === nil {

30 node.right = BST(value: value)

31 break

32 } else {

33 currentNode = node.right

Your SolutionsRun Code

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1 class Program {

2 class BST {

3 var value: Int

4 var left: BST?

5 var right: BST?

6

7 init(value: Int) {

8 self.value = value

9 left = nil

10 right = nil

11 }

12

13 func insert(value: Int) -> BST {

14 // Write your code here.

15 return self

16 }

17

18 func contains(value: Int) -> Bool {

19 // Write your code here.

20 return false

21 }

22

23 func remove(value: Int?, parentNode: BST?) -> BST {

24 // Write your code here.

25 return self

26 }

27 }

28 }

29

```

14     left = Program(left)
15     right = Program(right)
16     return Program(left, right)
17
18 def parse(program):
19     tokens = tokenize(program)
20     parser = Parser(tokens)
21     return parser.parse()
22
23 def main():
24     program = input("Enter a program: ")
25     result = parse(program)
26     print(result)
27
28 if __name__ == "__main__":
29     main()

```

Run or submit code when you're ready.