

Our Solution(s)Run Code

Solution 1Solution 2

1

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2

3

class BST:

4

def \_\_init\_\_(self, value):

5

self.value = value

6

self.left = None

7

self.right = None

8

9

# Average: O(log(n)) time | O(log(n)) space

10

# Worst: O(n) time | O(n) space

11

def insert(self, value):

12

if value < self.value:

13

if self.left is None:

14

self.left = BST(value)

15

else:

16

self.left.insert(value)

17

else:

18

if self.right is None:

19

self.right = BST(value)

20

else:

21

self.right.insert(value)

22

return self

23

24

# Average: O(log(n)) time | O(log(n)) space

25

# Worst: O(n) time | O(n) space

26

def contains(self, value):

27

if value < self.value:

28

if self.left is None:

29

return False

30

else:

31

return self.left.contains(value)

32

elif value > self.value:

33

if self.right is None:

Your SolutionsRun Code

Solution 1Solution 2Solution 3

1

# Do not edit the class below except for

2

# the insert, contains, and remove methods.

3

# Feel free to add new properties and methods

4

# to the class.

5

class BST:

6

def \_\_init\_\_(self, value):

7

self.value = value

8

self.left = None

9

self.right = None

10

11

def insert(self, value):

12

# Write your code here.

13

# Do not edit the return statement of this method.

14

return self

15

16

def contains(self, value):

17

# Write your code here.

18

pass

19

20

def remove(self, value):

21

# Write your code here.

22

# Do not edit the return statement of this method.

23

return self

24

