

Prompt	Scratchpad	Our Solution(s)	Video Explanation	Run Code	Your Solutions	Run Code
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Solution 1	Solution 2	Solution 3
<pre>1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved. 2 3 class BST { 4 constructor(value) { 5 this.value = value; 6 this.left = null; 7 this.right = null; 8 } 9 10 // Average: O(log(n)) time O(1) space 11 // Worst: O(n) time O(1) space 12 insert(value) { 13 let currentNode = this; 14 while (true) { 15 if (value < currentNode.value) { 16 if (currentNode.left === null) { 17 currentNode.left = new BST(value); 18 break; 19 } else { 20 currentNode = currentNode.left; 21 } 22 } else { 23 if (currentNode.right === null) { 24 currentNode.right = new BST(value); 25 break; 26 } else { 27 currentNode = currentNode.right; 28 } 29 } 30 } 31 return this; 32 } 33 34 // Average: O(log(n)) time O(1) space 35 // Worst: O(n) time O(1) space 36 contains(value) { 37 let currentNode = this; 38 while (currentNode !== null) { 39 if (value < currentNode.value) { 40 currentNode = currentNode.left; 41 } else if (value > currentNode.value) { 42 currentNode = currentNode.right; 43 } else { 44 return true; 45 } 46 } 47 return false; 48 } 49 50 // Average: O(log(n)) time O(1) space 51 // Worst: O(n) time O(1) space 52 remove(value, parentNode = null) { 53 let currentNode = this; 54 while (currentNode !== null) { 55 if (value < currentNode.value) { 56 parentNode = currentNode; 57 currentNode = currentNode.left; 58 } else if (value > currentNode.value) { 59 parentNode = currentNode; 60 currentNode = currentNode.right; 61 } else { 62 if (currentNode.left !== null && currentNode.right !== null) { 63 currentNode.value = currentNode.right.getMinValue(); 64 currentNode.right.remove(currentNode.value, currentNode); 65 } else if (parentNode === null) { 66 if (currentNode.left !== null) { 67 currentNode.value = currentNode.left.value; 68 currentNode.right = currentNode.left.right; 69 currentNode.left = currentNode.left.left; 70 } else if (currentNode.right !== null) { 71 currentNode.value = currentNode.right.value; 72 currentNode.left = currentNode.right.left; 73 currentNode.right = currentNode.right.right; 74 } else { 75 // This is a single-node tree; do nothing. 76 } 77 } else if (parentNode.left === currentNode) { 78 parentNode.left = currentNode.left !== null ? currentNode.left : current 79 } else if (parentNode.right === currentNode) { 80 parentNode.right = currentNode.left !== null ? currentNode.left : curren 81 } 82 break; 83 } 84 } 85 return this; 86 } 87 88 getMinValue() { 89 let currentNode = this; 90 while (currentNode.left !== null) {</pre>		<pre>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 constructor(value) { 7 this.value = value; 8 this.left = null; 9 this.right = null; 10 } 11 12 insert(value) { 13 // Write your code here. 14 // Do not edit the return statement of this method. 15 return this; 16 } 17 18 contains(value) { 19 // Write your code here. 20 } 21 22 remove(value) { 23 // Write your code here. 24 // Do not edit the return statement of this method. 25 return this; 26 } 27 } 28 29 // Do not edit the line below. 30 exports.BST = BST; 31</pre>
<div>Custom OutputRaw OutputSubmit Code</div>		

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91     currentNode = currentNode.left;
92   }
93   return currentNode.value;
94 }
95 }
96
97 exports.BST = BST;
98
```

Run or submit code when you're ready.