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Programming Assignment 6 Submission
Binary Search Trees - Use recursion to search, order, and count the nodes in a
                        Binary Search Tree.
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Input: 50, 20, 10, 30, 60, 80, 70

The output correctly uses the search()/searchAux() functions recursively and returns "Found" if the node is located in the BST. The functions also correctly output "Not Found" if the node is not in the BST. After the user is finished searching, the inOrder()/inOrderAux() & preOrder()/preOrderAux() functions recursively traverse the BST and output the nodes InOrder and PreOrder. Finally, the nodeCount()/nodeCoutAux() functions recursively traverse and output the total count of the nodes in the BST.

```

C:\WINDOWS\system32\cmd.exe
Constructing empty BST
BST is empty

Now insert a bunch of integers into the BST.
Try items not in the BST and some that are in it:
Item to insert (-999 to stop): 50
Item to insert (-999 to stop): 20
Item to insert (-999 to stop): 10
Item to insert (-999 to stop): 30
Item to insert (-999 to stop): 60
Item to insert (-999 to stop): 80
Item to insert (-999 to stop): 70
Item to insert (-999 to stop): -999
BST is not empty

Now testing the search() operation.
Try both items in the BST and some not in it:
Item to find (-999 to stop): 50
Found
Item to find (-999 to stop): 20
Found
Item to find (-999 to stop): 10
Found
Item to find (-999 to stop): 30
Found
Item to find (-999 to stop): 60
Found
Item to find (-999 to stop): 80
Found
Item to find (-999 to stop): 70
Found
Item to find (-999 to stop): 100
Not found
Item to find (-999 to stop): 90
Not found
Item to find (-999 to stop): -5
Not found
Item to find (-999 to stop): 0
Not found
Item to find (-999 to stop): 200
Not found
Item to find (-999 to stop): -999

InOrder traversal of BST: 10 20 30 50 60 70 80
PreOrder traversal of BST: 50 20 10 30 60 80 70
Node Count = 7
Press any key to continue . . .

```

Sample run with empty tree.

```
C:\WINDOWS\system32\cmd.exe
Constructing empty BST
BST is empty

Now insert a bunch of integers into the BST.
Try items not in the BST and some that are in it:
Item to insert (-999 to stop): -999
BST is empty

Now testing the search() operation.
Try both items in the BST and some not in it:
Item to find (-999 to stop): 5
Not found
Item to find (-999 to stop): 20
Not found
Item to find (-999 to stop): -999

InOrder traversal of BST: Empty tree
PreOrder traversal of BST: Empty tree
Node Count = 0
Press any key to continue . . .
```

Sample run with one Root Node.

```
C:\WINDOWS\system32\cmd.exe
Constructing empty BST
BST is empty

Now insert a bunch of integers into the BST.
Try items not in the BST and some that are in it:
Item to insert (-999 to stop): 10
Item to insert (-999 to stop): -999
BST is not empty

Now testing the search() operation.
Try both items in the BST and some not in it:
Item to find (-999 to stop): 10
Found
Item to find (-999 to stop): 522
Not found
Item to find (-999 to stop): -999

InOrder traversal of BST: 10
PreOrder traversal of BST: 10
Node Count = 1
Press any key to continue . . .
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