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Course: CS 355

Semester: Fall 2015

Assignment Number: 2

Assignment Type: Lab 2 – Test Cases

Assignment Description: Complete the Test Cases below. If a test case fails, modify code and test again. Copy and paste table for subsequent tests until the code is correct. Add more test cases to ensure multiple possibilities are checked. Also, check Remove routines and constructors and other methods.

Assignment Due Date: Friday, November 13, 2015 just before midnight

To Be Included in Portfolio: YES

Test Case 1:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Insert(13) /InOrder	13	13	No
Insert(20) /InOrder	13 20	13 20	No
Insert(18) /InOrder	13 18 20	13 18 20	No
Insert(40) /InOrder	13 18 20 40	13 18 20 40	No

Test Case 2:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Remove Leaf	Leaf will be deleted	Leaf was deleted	No
Remove Node with 1 child on left	Predecessor will replace the node	Predecessor replaced the node	No
Remove Node with 1 child on right	Successor will replace the node	Successor replaced the node	No
Remove Node with 2 children	Successor will replace deleted Node	Successor replaced deleted node	No

Test Case 3:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Insert(13) /PreOrder	13	13	No
Insert(20) /PreOrder	13 20	13 20	No
Insert(18) /PreOrder	13 20 18	13 20 18	No
Insert(40) /PreOrder	13 20 18 40	13 20 18 40	No

Test Case 4:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Insert(13) /PostOrder	13	13	No
Insert(20) /PostOrder	20 13	20 13	No
Insert(18) /PostOrder	18 20 13	18 20 13	No
Insert(40) /PostOrder	18 40 20 13	18 40 20 13	No

Test Case 5:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Use the Assignment operator	Will set one BST equal to another	Set one BST equal to the other	No
Use the Copy Constructor	Will make a new BST with the data from the old one	Made a new BST with the data from the old one	No
Use the Destructor	Will delete the BST	Deleted the BST	No

Test Case 6:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Insert 5 nodes /countNodes	5	5	No
Insert another non duplicate node /countNodes	6	6	No
Remove 2 nodes /countNodes	4	4	No

Test Case 7:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Insert(3) Search(3)	It will find 3	3 was found	No
Search(4)	It will not find 4	4 was not found	No

Test Case 8:

Date/Time: 11/12	Expected Result	Actual Result	Action Needed
Insert(3) /countHeight	1	1	No
Insert(2) /countHeight	2	2	No
Insert(4) /countHeight	2	2	No
Insert(5) /countHeight	3	3	No
Remove(4) /countHeight	2	2	No