

CPSC 223: Assignment #7

Due: Thursday April 18th

Implement the remove method in BinarySearchTree class. **Hand in** a hard-copy of your code; and **Submit** your code to the class account on ada (where your code should compile and run).

STEP 1: Implement `lookforMin_help(Node * treeptr)`, which finds the parent of the minimum node in the subtree rooted at `*treeptr`. It helps `removeItem` function find the parent of inorder successor.

STEP 2: Implement `lookforMin (Node * treeptr)` and `lookforMax(Node * treeptr)`, which find the minimum and maximum node in the subtree rooted at `*treeptr`. It is also the helper function for `FindMin()` and `FindMax()`.

STEP 3: Implement `FindMin()` and `FindMax()`.

STEP 4: Implement `removeItem (Node *& treeptr, const ItemType& theItem)` which is the recursive implementation to remove a value from a binary search tree.

STEP 5: Implement `remove (const ItemType& theItem)`

STEP 6: Test `FindMin`, `FindMax` and `remove` functions in your binary search tree class.

STEP 7: **Place your files in a hw7 directory, and submit it.** Also, be sure to turn in hard-copy of your code, any input besides your test file you used to test your code, and all outputs you get from your test file.