How to delete an object from BST.

PsuedoCode:

Node removeItem(Node root, object toRemove {

If (root == null)

//do nothing - return root i think.

rootData = root.data

if(toRemove == rootData)

Root = removeFromRoot(root); //find the data to remove and rewire the rest of the nodes around it to work properly.

Elseif(toRemove < rootData)

Root.left = removeItem(root.left, toRemove)

Else // toRemove > rootData

Root.right = removeItem(root.right, toRemove);

Return root;

}

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removeFromRoot(root) // delete the root from a subtree.

CASE 1: if the root node has both left and right children

STEP 1: Find the largest node in the left subtree of the root (The rightmost node of roots subtree)

You can do this with a while loop moving right down the tree

Or recursively like this

Node findLargest(Node root)

{

Node largest;

if (root.right != null)

largest = findLargest(root.right);

Return largest;

}

STEP 2: Assign that largest object data of the left subtree into the root node. (Copy that data into the root node)

STEP 3: remove the node of the largest ojbect from the left subtree.

3.5 - If that node has subtree of its own (on the left side)

“Algorithm design is about logic first, then programming”

CASE 2: if the root has only right child

STEP 1: root = root.right

CASE 3: if the root has only left child

STEP 1: root = root.left

CASE 4: root has no children

STEP 1: root = null;

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