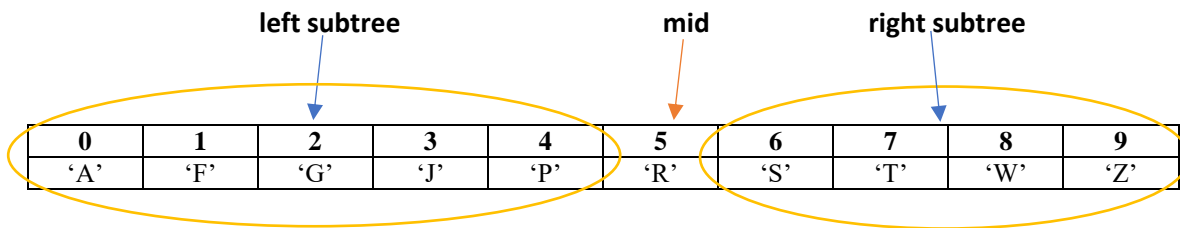


CSC 242

Lab 8

Add the method **rebalance** to the **LinkedBST** class. The method copies the tree's items to a list during an inorder traversal and then clears the tree. The method then copies the items from the list back to the tree in such a manner that the shape of the tree is balanced. Use a recursive helper function that repeatedly visits the items at the midpoints of sublists of the list to implement the balance algorithm.

Here is an example of the list generated after an inorder traversal:



The root will be 'R' and then the left and right subtrees will be created based on each sublist to the left and right of the midpoint—and then recursively repeat this process. Just make sure the resulting tree maintains the necessary properties of a BST after it is balanced.