Binary Search Tree

At the time of insertion of each node in Binary search tree, we have checked the node → data for every insertion. If node → data is greater than root node → data then we insert newly created node as right child of root node and if node → data is smaller than root node data then we insert newly created node as left child of root data.

For height balanced BST tree we have calculated balance factor for each node in BST and if balance factor is not in the range of {-1, 0, 1}, then we have performed rotation accordingly.

if (balancefactor(root) == 2) and bf(root → l-child == -1) then perform LR rotation

if (bf(root) == 2) and bf(root → l child == 1)) perform LL rotation

if (bf(root) == -2) and bf(root → l. child == 1) perform LL rotation.

if (bf(root) == -2 and bf(root → r. child == 1) perform RL rotation