**//snippet for right rotation**

**TreeNode \* rightRotate(TreeNode \* y) {**

**TreeNode \* x = y -> left;**

**TreeNode \* T2 = x -> right;**

**// Perform rotation**

**x -> right = y;**

**y -> left = T2;**

**return x;**

**}**

**//insertion is same as the BST**

**//Balance Factor**

**int bf = getBalanceFactor(r);**

**// Left Left Case**

**if (bf > 1 && new\_node -> value < r -> left -> value)**

**return rightRotate(r);**

**// Right Right Case**

**if (bf < -1 && new\_node -> value > r -> right -> value)**

**return leftRotate(r);**

**// Left Right Case**

**// Right Left Case**