Write up LAB 5 AVL Tree suraj Reddoor URBAN EDGE

def insert_node (root, key)

If empty tree :- add key to the tree

else if key value < root value :
:- go to the left of the tree
- use recursion

else
:- go to the right of the tree
- use recursion

~~Set~~ root.height = 1 + max(left ~~right~~ right
children heights)

balance = get balance of root

if (balance > 1 and key > left root value)

leftRoot = leftRotate (left root).
return leftRotate (root)

if (balance < -1 and key < right root value):
root.right = rightRotate (root)

if (balance > 1 and key < left root value) :
return rightRotate (root)

if (balance < -1 and key > root.left.val):
return leftRotate (root)

return root

EDGE

```
def RightRotate(root):

    y = right root
    temp = left root of y

    left of y = root
    right of root = temp

    root.height = 1 + max(left and right root of y)

    y.height = 1 + max(right and left root of y)

    return y

def LeftRotate(root):

    y = root.right
    temp = y.left

    y.left = root
    root.right = temp

    root.height = 1 + max(left and right of root)

    y.height = 1 + max(left and right of y)

    return y
```