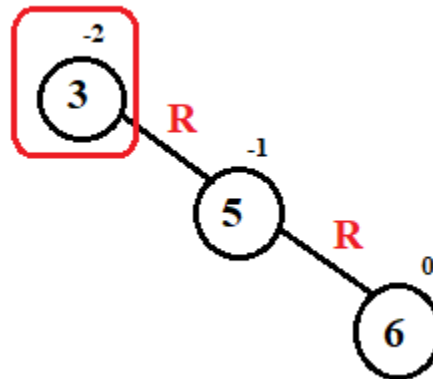


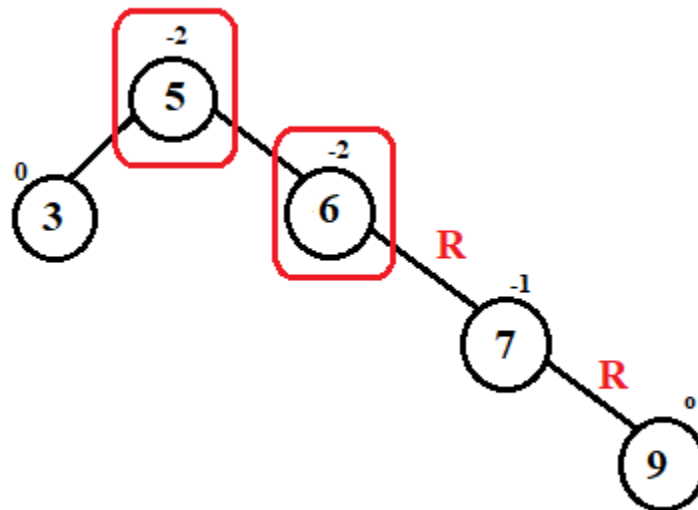
## Lab08: Learn to build/draw AVL tree

Build AVL tree from the given Data: 3 5 6 7 9 10 11 21 20 18 19

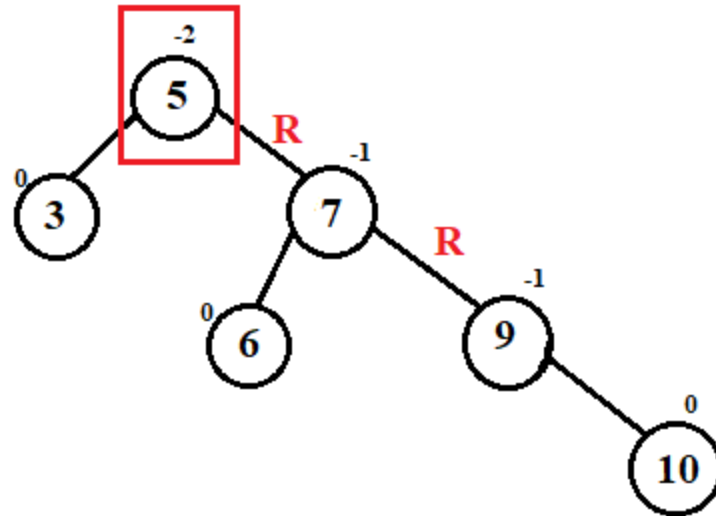
Solution:



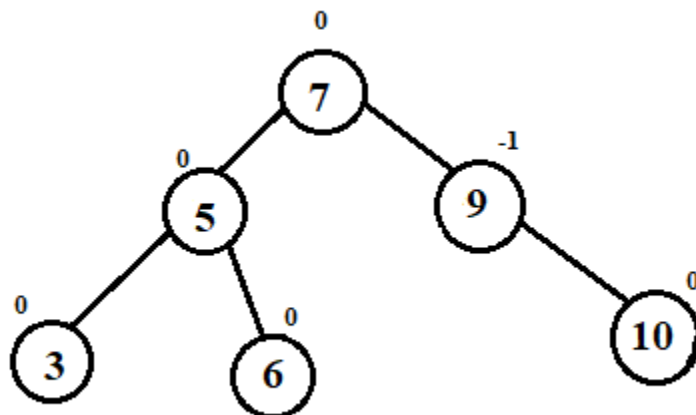
Inserted 3, 5 and 6 tree becomes RR Unbalanced, so we apply left or anti-clockwise rotation.



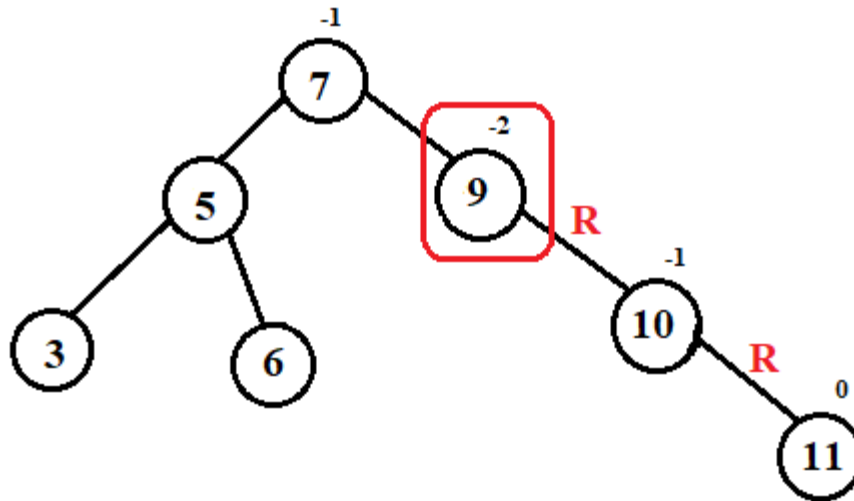
After Inserting 7 and 9 tree again becomes RR Unbalanced so we apply left or anti-clockwise rotation.



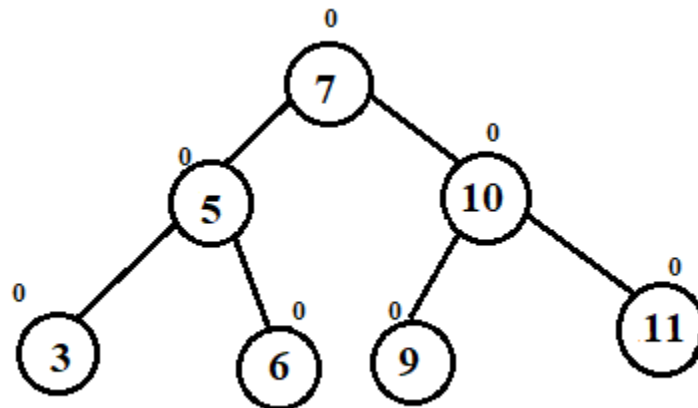
After Inserting 10 again we face RR Unbalance so we again apply left or anti-clockwise rotation.



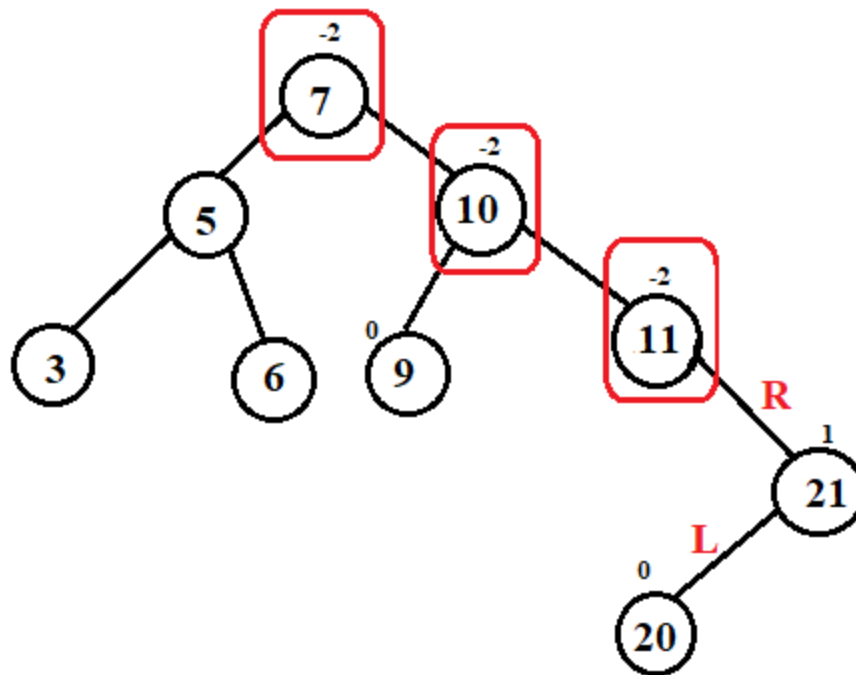
So our tree is balanced now, let's add next nodes.



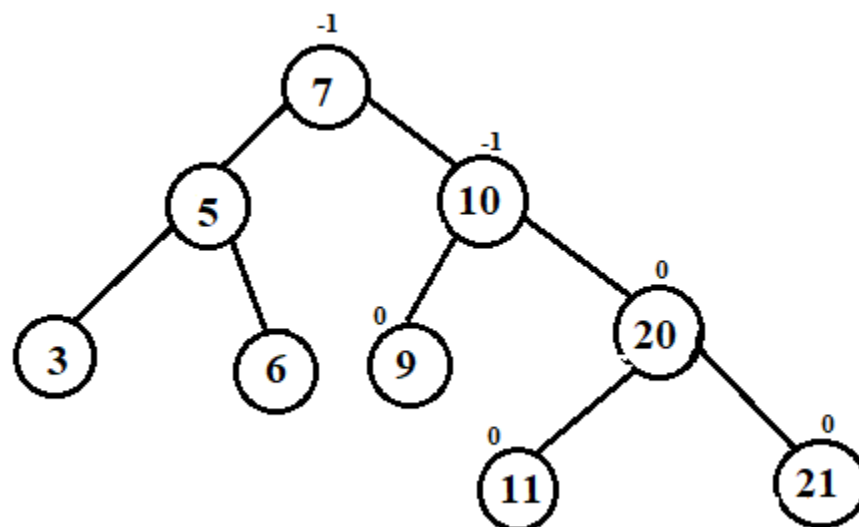
After inserting 11 tree becomes RR Unbalanced at 9, so we apply left or anti-clockwise rotation.



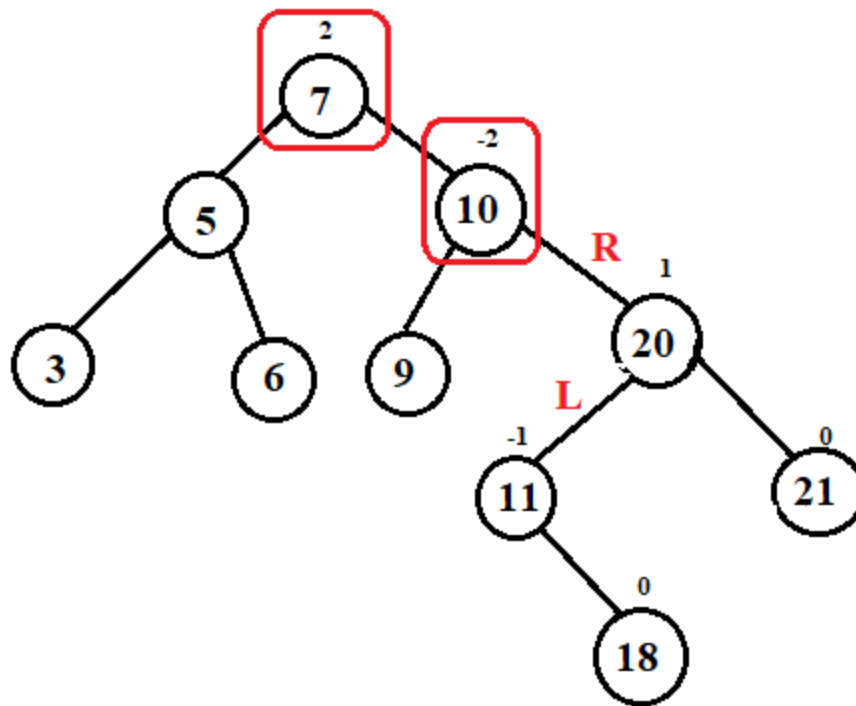
Our tree is balanced now let's add next nodes.



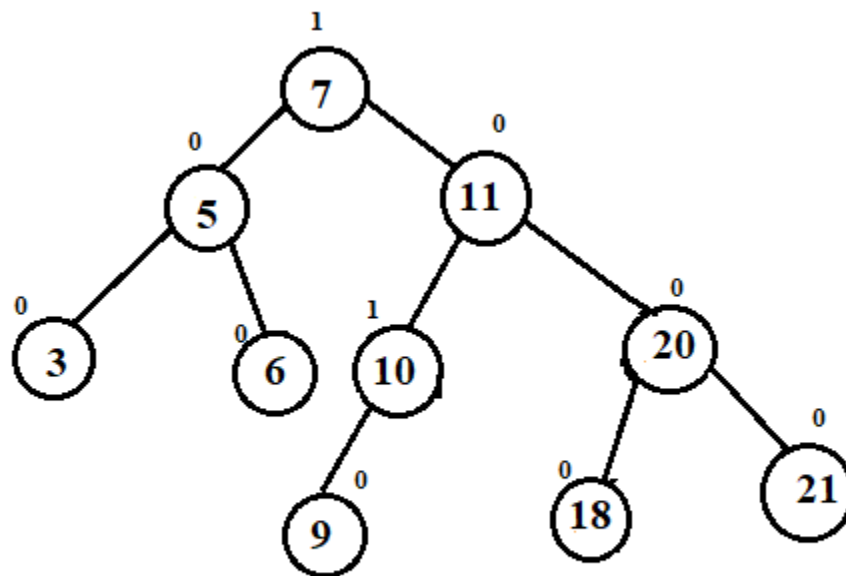
After Inserting 21 and 20 our tree becomes RL Unbalance, so we do RR Rotation.



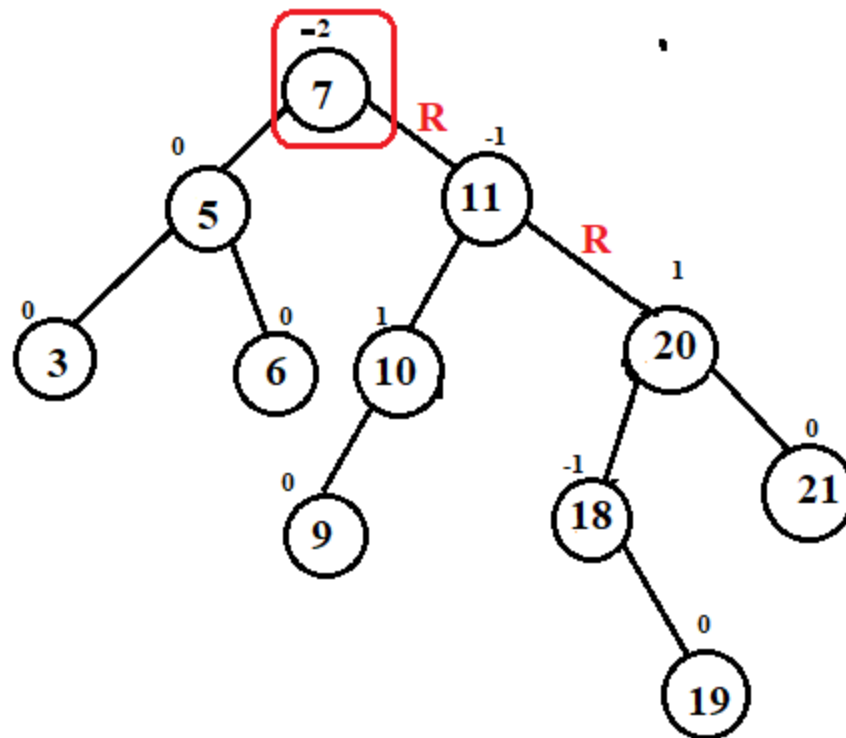
Our tree is balanced now let's add new nodes.



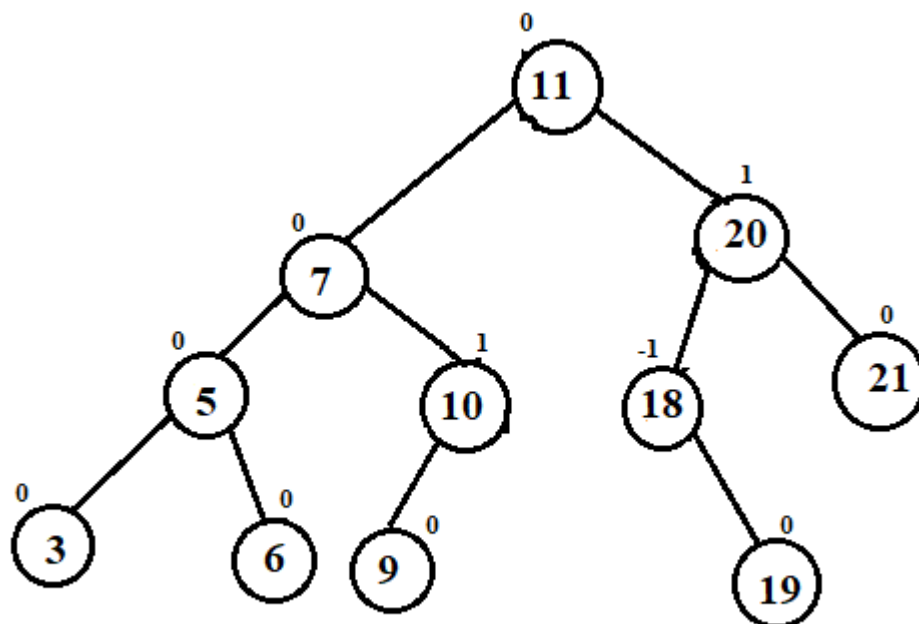
After inserting 18 tree becomes RL Unbalanced so we apply RR rotation.



Our tree is balanced now let's insert next node.



After inserting 19 our tree becomes RR Unbalanced at 7 so we apply left or anti-clockwise rotation.



This is our final AVL Tree