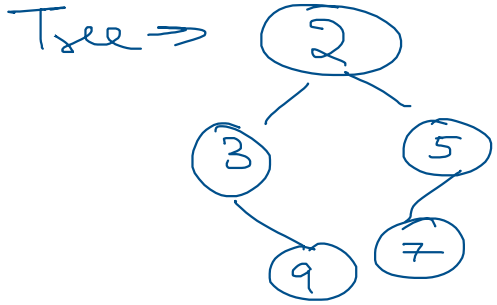
Trees, July 28

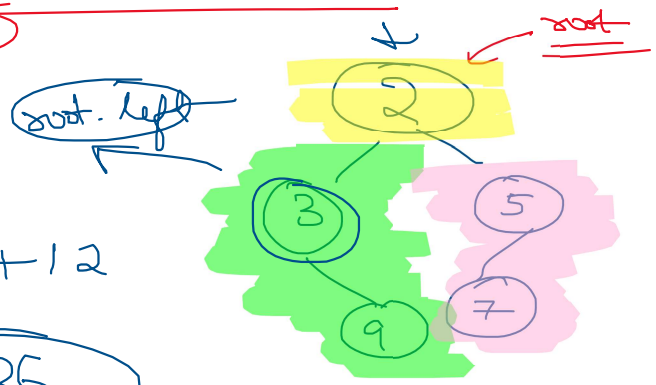
28 July 2020 20:31

1. Create a Binary Tree //Done
2. Sum of all Nodes //Done
3. Get total number of Nodes //Done
4. Total number of leaf nodes //Done
5. Height of a Binary Tree

Resource - https://thecodingsimplified.com/binary-tree/



Sum of all Nodes



2+3+5+9+7 = 26

2+12+12

= 26

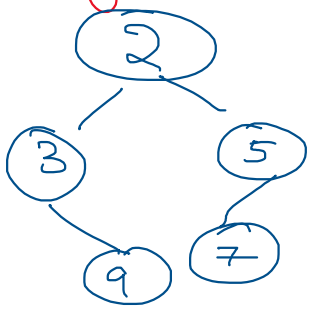
Root.data + LeftSubTreeSum + RightSubTreeSum

0, + TreeSum(Node root)

```
{ if (root == null) return 0;
return (root.data + TreeSum(root.left) + TreeSum(root.right));
}
```

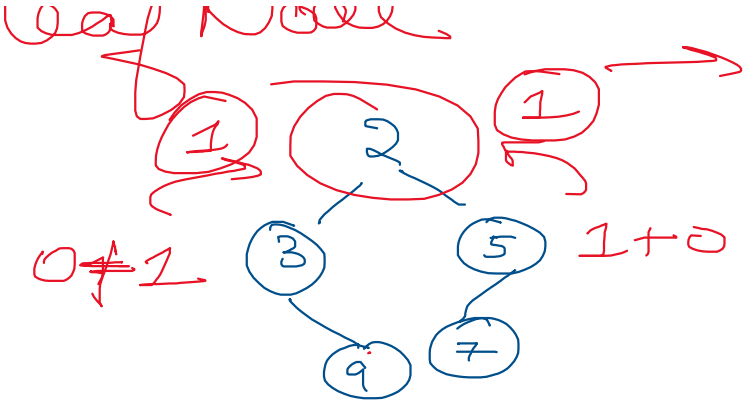
(Sum of left sub Tree) (Sum of Right Sub Tree)

Count the no. of Nodes




```
int CountNodes(Node root)
{ if (root == null) return 0;
return ( 1 + CountNodes(root.left) + CountNodes(root.right));
}
```

Count Leaf Node




```
int LeafNode(Node root)
{   if (root == null) return 0;
    if (root.left == null && root.right == null) return 1;
    return LeafNode(L.S.T) + LeafNode(R.S.T);
}
```