



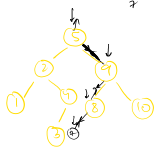


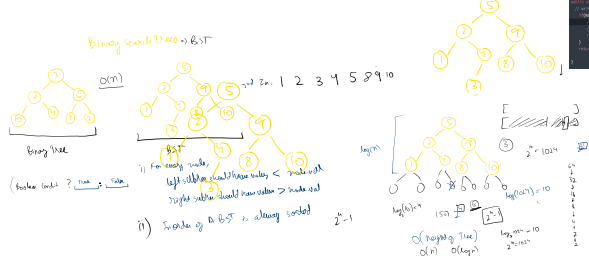
1. Leaf Node  null
 2.  only left child
 3.  only right child
 4.  Both children

1) Find ideal \rightarrow min left \rightarrow min right
 $\hookrightarrow \min(\text{root}, \text{right})$
 \rightarrow root < left ideal
 \rightarrow root > right = delete Node (root > right, ideal)
 \rightarrow return root.



```
public Node insertNode(Node root, int val){
    // WRITE YOUR CODE HERE
    //base case, when we are standing on null
    if(root == null){
        Node nn = new Node(val);
        return nn;
    }
    if(val < root.val){
        //insert in left
        root.left = insertNode(root.left, val);
    }else{
        //insert in right
        root.right = insertNode(root.right, val);
    }
    return root;
}
```

```
public static boolean find(Node node, int data){
    // write your code here
    if(node == null) return false;
    else if(data == node.data) return true;
    else if(data < node.data) return find(node.left,data);
    else return find(node.right,data); //when data>node.data
}
```

[illegible]

```
public static int max(Node node) {
    // write your code here
    //Node right = null;
    //In the rightmost node
    //Because he having no one in my right side
    return node.data;
}
return max(node.right);
}
```