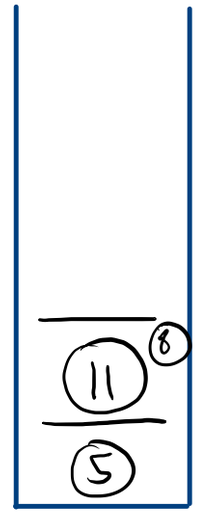
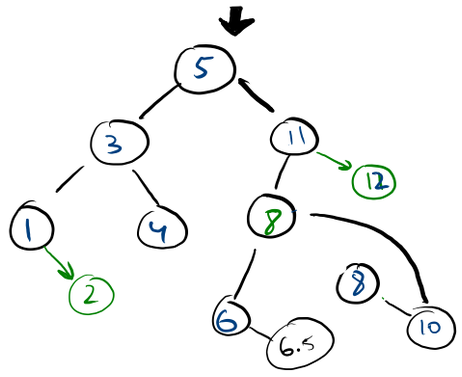
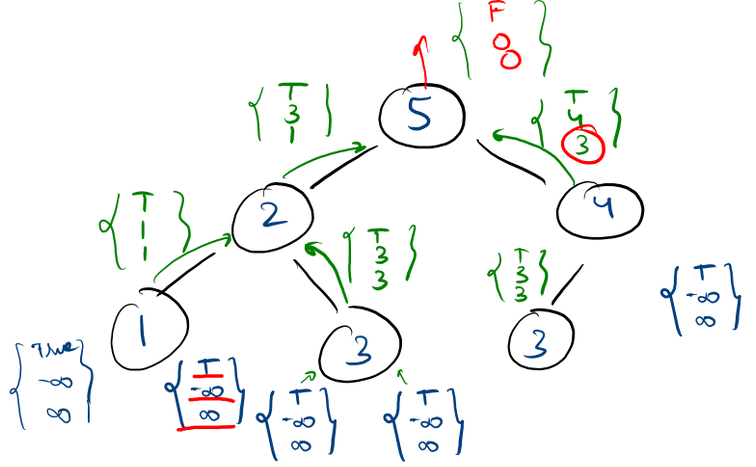
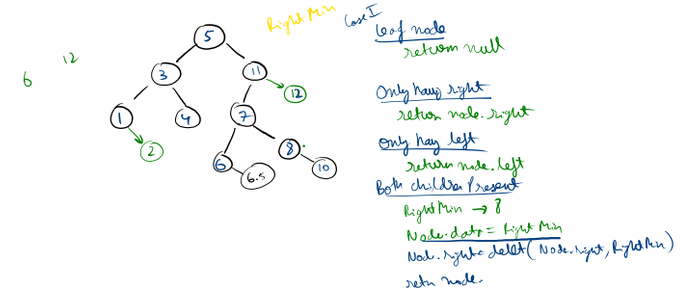
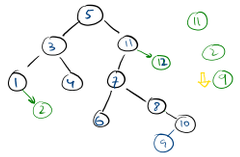
```java
public Node deleteNode(Node root, int val){
    // WRITE YOUR CODE HERE
    if(root == null) return null;
    if(root.val == val){
        //i am the person who wants to get deleted
        //if im a leaf node
        if(root.left == null && root.right == null){
            return null;
        }else if(root.left == null && root.right != null){
            //only right child present
            return root.right;
        }else if(root.left != null && root.right == null){
            //only left child
            return root.left;
        }else{
            //both
            int rightMin = min(root.right);
            root.val = rightMin;
            root.right  = deleteNode(root.right,rightMin);
        }
    }else if(val < root.val){
        root.left = deleteNode(root.left,val);
    }else{
        root.right = deleteNode(root.right,val);
    }
    return root;
}
```

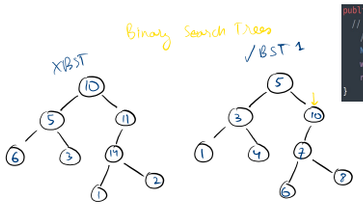













```java
public static int max(Node root) {
  // write your code here
    //iterative
    Node  temp = root;
    while(temp.right  != null) temp = temp.right;
    return temp.data;
}
```