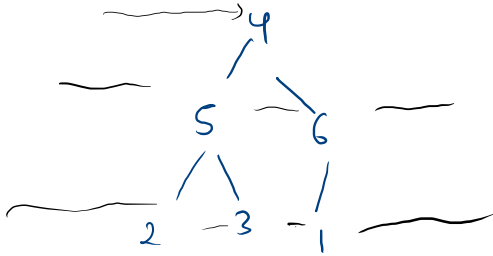


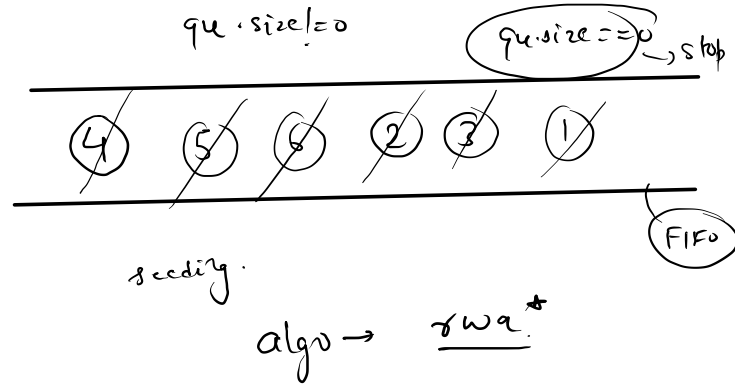
Revision

Level order.



4 5 6 2 3 1 ✓

4 5 6 2 3 1



Revision.

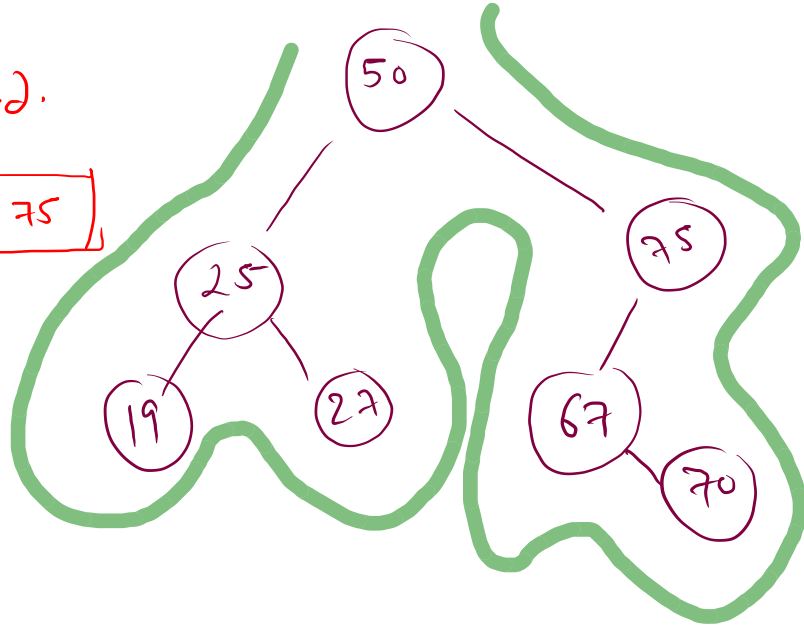
BST \rightarrow

Binary

Search Tree.

in order of BST: \uparrow sorted.

19 25 27 50 67 70 75

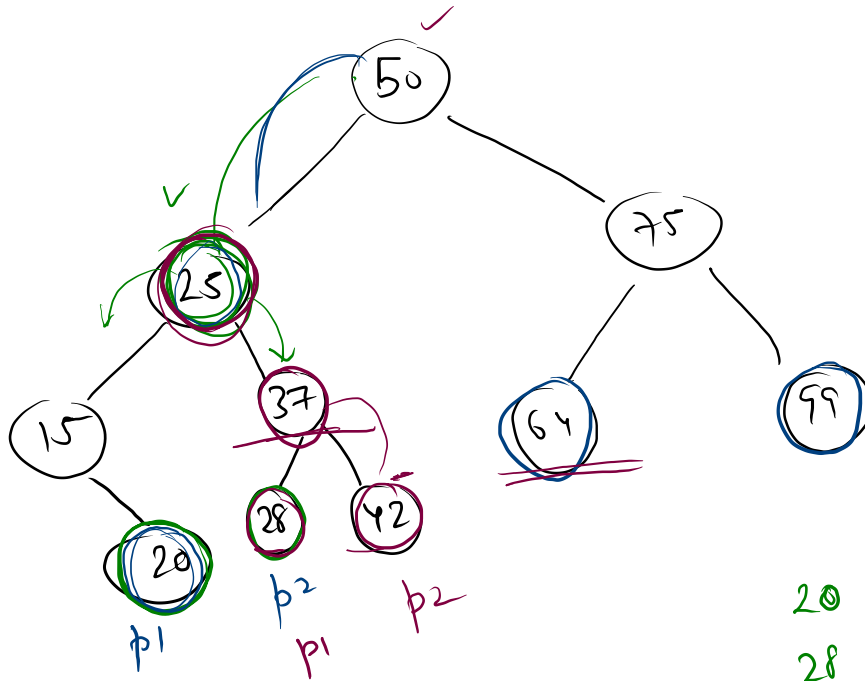


BST

LCA) Lowest Common ancestor.

(BT / BST).

BST.



64, 99 → 75

37, 64 → 50

28, 42 → 37

20 15 25 50

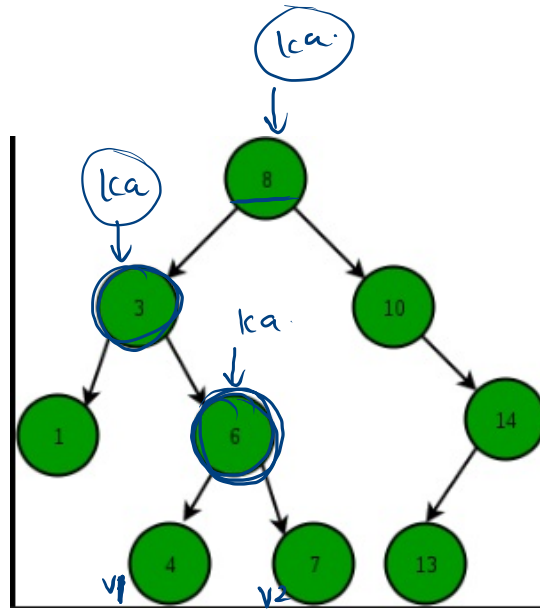
28 37 25 50

BST. ∴ LCA

LCA =

$v_1 > lca$
 $v_2 > lca$

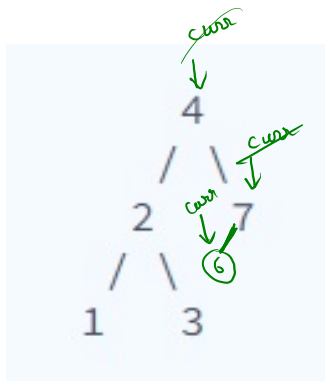
$v_1 < 8 \Rightarrow 4 < 8$
 $v_2 < 8 \Rightarrow 7 < 8$



$v_1 > lca$
 $v_2 > lca$ } \rightarrow

$v_1 < lca$
 $v_2 < lca$ } left

⑥.



curr = node
↳ create node

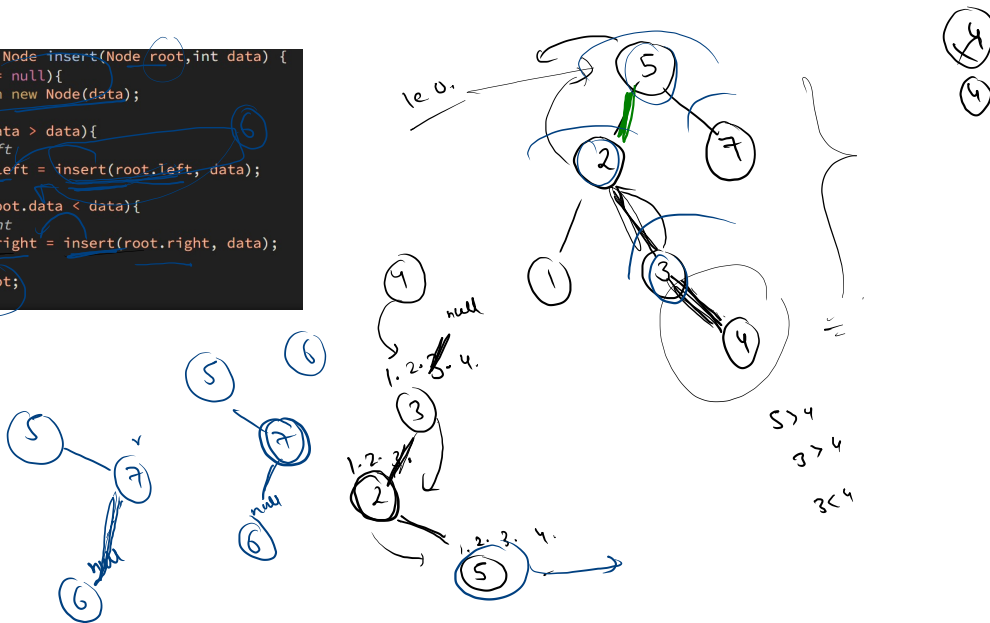
6

$$z_{\text{left}} = 6$$

```

1 public static Node insert(Node root,int data) {
2     if(root == null){
3         return new Node(data);
4     }
5     if(root.data > data){
6         // left
7         root.left = insert(root.left, data);
8     }
9     else if(root.data < data){
10        //right
11        root.right = insert(root.right, data);
12    }
13    return root;
14 }

```



isBST?

```
int prev = Integer.MIN_VALUE;

boolean checkBST(Node root) {
    if(root == null){
        return true;
    }

    boolean la = checkBST(root.left); //line
    if(la == false)
        return false;
    //process

    if(prev >= root.data){
        return false;
    }

    prev = root.data;

    boolean ra = checkBST(root.right);
    if(ra == false)
        return false;

    return true;
}
```

prev = -∞ ~~1~~ ~~3~~ ~~5~~ ~~7~~ true
 -∞ > 1

BST

1 > 3

3 > 5

