# Binary Search Tree : Lowest Common Ancestor

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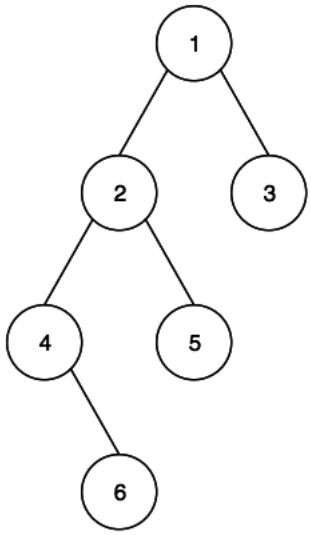
You are given pointer to the root of the binary search tree and two values $v_1$ and $v_2$. You need to return the lowest common ancestor (LCA) of $v_1$ and $v_2$ in the binary search tree.




In the above example, the lowest common ancestor of the nodes $5$ and $6$ is the node $2$, as $2$ is the lowest common node which has both the nodes $5$ and $6$ as it's descendants.

You only need to complete the function.

**Input Format**

You are given a function,

```
node * lca (node * root ,int v1,int v2) {

}
```

It is guaranteed that v1 and v2 are present in the tree.

Node is defined as :

```
struct node
{
int data;
node * left;
node * right;
}node;
```

**Output Format**

Return the LCA of $v_1$ and $v_2$.

**Sample Input**

$v_1 = 1$ and $v_2 = 7$.

**Sample Output**

LCA of $1$ and $7$ is $4$ (which is the root).
Return a pointer to the root in this case.

Submissions:37418

Max Score:30
Difficulty: Easy

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Java 8

```
1
2
3  /* Node is defined as :
4  class Node
5     int data;
6     Node left;
7     Node right;
8
9     */
10
11 static Node lca(Node root,int v1,int v2)
12    {
13
14
15    }
16
17
18
19
20
```

Line: 1 Col: 1

Upload Code as File  Test against custom input  Run Code  Submit Code