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SDE Technical Test - November

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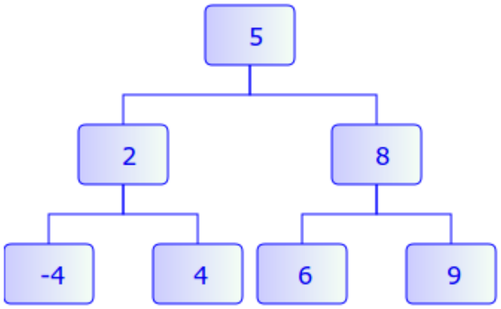
You are given a function **getInorderSuccessor** which takes a BST (Binary Search Tree) as it's parameter. Every node has an extra pointer *"next"* , which is intialized to null, fill *next* with node pointers which represent Inorder Successor.

In a binary tree, inorder successor of a node is the next node in inorder traversal of the binary tree. Inorder successor is NULL for the last node in inorder traversal.

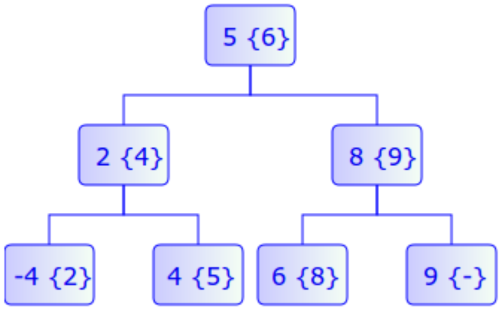
In BST, inorder successor of an input node can also be defined as the node with the smallest key greater than the key of input node. So, it is sometimes important to find next node in sorted order.

Sample Input :



Sample output.

The value of the node pointed by the next pointer is marked in { }



NOTE: The preorder of the tree you return would be printed to help you in debugging

Pick your language C C++ Java

Time Remaining: 00:09:01

PROGRESS

```
/* Write your custom functions here */


static Node lastNodeVisited = null;

static Node getInorderSuccessor(Node root) {
/* For your reference
  class Node {
      Node left, right, next;
      int data;
              Node(int newData) {
          left = right = next = null;
          data = newData;
      }
  }
*/


    if(root==null )
        return null;

    getInorderSuccessor(root.left);

    if(lastNodeVisited!=null)
        lastNodeVisited.next = root;

    lastNodeVisited = root;

    getInorderSuccessor(root.right);

    return root;
}
```

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