**Convert A Given Binary Tree To Doubly Linked List**

void inorder(BinaryTreeNode<int>\* root, vector<int>&v){

    if(root==NULL)return;

    inorder(root->left,v);

    v.push\_back(root->data);

    inorder(root->right,v);

}

BinaryTreeNode<int>\* BTtoDLL(BinaryTreeNode<int>\* root) {

    vector<int>v;

    inorder(root,v);

    BinaryTreeNode<int>\* head = new BinaryTreeNode<int>(-1);

    BinaryTreeNode<int>\* curr = head;

    BinaryTreeNode<int>\* prev = NULL;

    for(auto&x:v){

        BinaryTreeNode<int>\* t = new BinaryTreeNode<int>(x);

        curr->right = t;

        curr->left = prev;

        prev = curr;

        curr = curr->right;

    }

    curr->right = NULL;

    return head->right;

}