import java.io.\*;

import java.util.\*;

class Node{

Node left,right;

int data;

Node(int data){

this.data=data;

left=right=null;

}

}

class Solution{

static void levelOrder(Node root){

//Write your code here

Queue<Node> queue=new LinkedList<Node>();

queue.add(root);

while(!queue.isEmpty())

{

Node tempNode=queue.poll();

System.out.printf("%d ",tempNode.data);

if(tempNode.left!=null)

{

queue.add(tempNode.left);

}

if(tempNode.right!=null)

{

queue.add(tempNode.right);

}

}

}

public static Node insert(Node root,int data){

if(root==null){

return new Node(data);

}

else{

Node cur;

if(data<=root.data){

cur=insert(root.left,data);

root.left=cur;

}

else{

cur=insert(root.right,data);

root.right=cur;

}

return root;

}

}

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

int T=sc.nextInt();

Node root=null;

while(T-->0){

int data=sc.nextInt();

root=insert(root,data);

}

levelOrder(root);

}

}