

<https://course.acciojob.com/idle?question=1212a47c-5a68-4df2-92b3-768ed753d6eb>

● EASY

● Max Score: 20 Points

Binary Tree Preorder Traversal

Given the `root` of a binary tree, return *the preorder traversal of its nodes' values*.

Note: You just need to implement the `preorderTraversal()` function. Input and output have been handled in the driver code.

Input Format

First line contains a string representing the tree as described below.

The values in the string are in the order of level order traversal of the tree where, numbers denote node values, and a character "N" denotes NULL child.

Output Format

Print the preorder traversal of the tree.

Example 1

Input

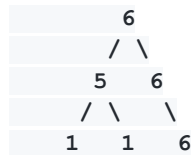
```
6 5 6 1 1 N 6
```

Output

```
6 5 1 1 6 6
```

Explanation

The given tree can be represented as:-



The preorder traversal of the tree is :- 6 5 1 1 6 6

Example 2

Input

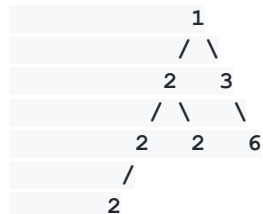
1 2 3 2 2 N 6 2 N N N N N N N

Output

1 2 2 2 2 3 6

Explanation

The given tree can be represented as: -



The preorder traversal of the tree is :- 1 2 2 2 2 3 6

Constraints

- The number of nodes in the tree is in the range $[0, 10^4]$.
- $-1000 \leq \text{Node.val} \leq 1000$
- The depth of the tree will not exceed 1000.

Topic Tags

- **Trees**

My code

// in java

```
import java.util.*;
import java.lang.*;
import java.io.*;

class Node
{
    int data;
    Node next ,prev;

    Node(int data, Node next,Node prev)
    {
        this.data = data;
        this.next = next;
        this.prev = prev;
    }

    Node() {}
}

public class Main
{
    static Node insert(Node root,int n)
    {
        if(root==null)
        {
            root=new Node(n,null,null);
            return root;
        }
    }
}
```

```

else if(n< root.data)
    root.prev= insert( root.prev, n);
else if(n>root.data)
    root.next= insert( root.next, n);
return root;
}

```

```

static void preorder(Node root)

```

```

{
    if(root !=null)
    {
        System.out.print(root.data+" ");
        preorder(root.prev);
        preorder(root.next);
    }
}

```

```

    public static void main (String[] args) throws java.lang.Exception
    {

```

```

        //your code here

```

```

        Scanner s=new Scanner(System.in);

```

```

        int n=s.nextInt();

```

```

        //int arr[]=new int[n];

```

```

        Node root=null;

```

```

        for(int i=0;i<n;i++)

```

```

        {

```

```

            int m=s.nextInt();

```

```

            root=insert( root, m);

```

```

        }

```

```

        preorder(root);

```

```

    }

```

```

}

```