

Linked Representation:

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

Shortcut :

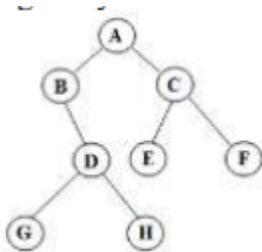
Pre Order	Print (Rt)	L	R
In Order	L	Print (Rt)	R
Post Order	L	R	Print (Rt)

Binary tree traversed:

- Preorder
- Inorder
- Postorder

Traversing a tree is a process of visiting every node of the tree and exactly once.

- **Preorder:**



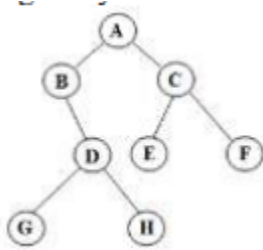
Order=ABDGHCEF

Steps:

- 1) Visit root node
- 2) Visit left subtree in preorder
- 3) Visit right subtree in preorder

```
void preorder (node *T)
{
if(T!=NULL)
{
printf("\n %d",T->data);
preorder(T->left);
preorder(T->right);
}
}
```

- **Inorder:**



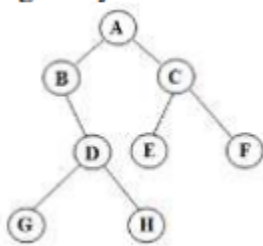
For above tree: Order =BGDHAECF

Steps:

- 1) Traverse left subtree in Inorder
- 2) Visit the root node
- 3) Traverse right subtree in Inorder

```
void inorder(node *T)
{
    if(T!=NULL)
    {
        Inorder (T→left);
        printf("\n%d",T→data);
        Inorder(T→right);
    }
}
```

• **Postorder:**



For above tree: Order =GHDBEFCA

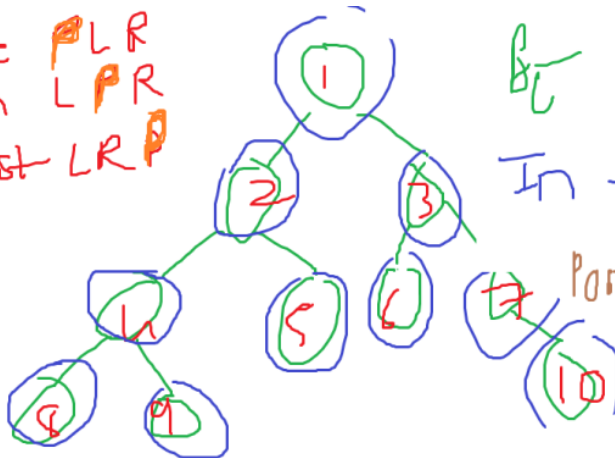
Steps:

- 1) Traverse left subtree in postorder
- 2) Traverse right subtree in postorder
- 3) At last, visit the root node

```
void Postorder(node *T)
{
    if(T!=NULL)
    {
        Postorder (T→left);
        Postorder (T→right);
        printf("\n%d",T→data);
    }
}
```

Example :

Pre ~~P~~LR
In ~~L~~PR
Post LR~~P~~



Pre 1 2 4 8 9 5 3 6 7 10

In - 8 4 9 2 5 1 6 3 7 10

Post - 8 9 4 5 2 6 10 7 3 1