

## Traversal of Binary Tree

**Tree Traversal:** Tree Traversal refers to the process of visiting each node in a tree data structure exactly once.

**Various tree traversal Algorithm are-**

### 1. Preorder Traversal-

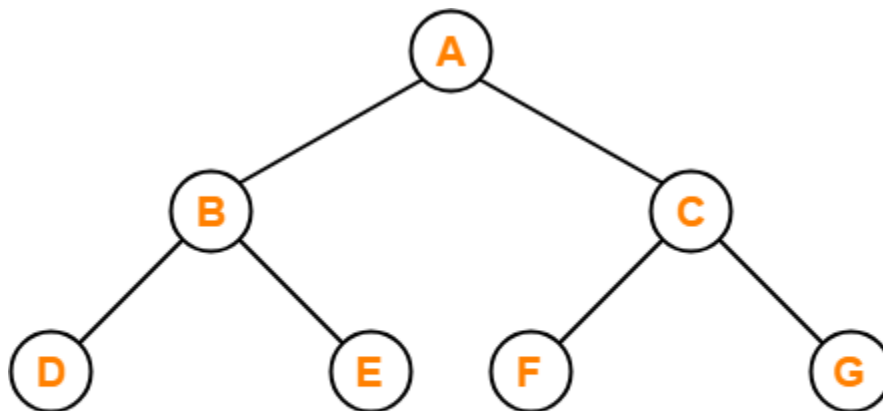
#### Algorithm-

1. Visit the root
2. Traverse the left sub tree i.e. call Preorder (left sub tree)
3. Traverse the right sub tree i.e. call Preorder (right sub tree)

**Root → Left → Right**

- **Example**

Consider the following example-



**Preorder Traversal : A , B , D , E , C , F , G**

**Applications-**

- Preorder traversal is used to get prefix expression of an expression tree.
- Preorder traversal is used to create a copy of the tree.

## 2. Inorder Traversal-

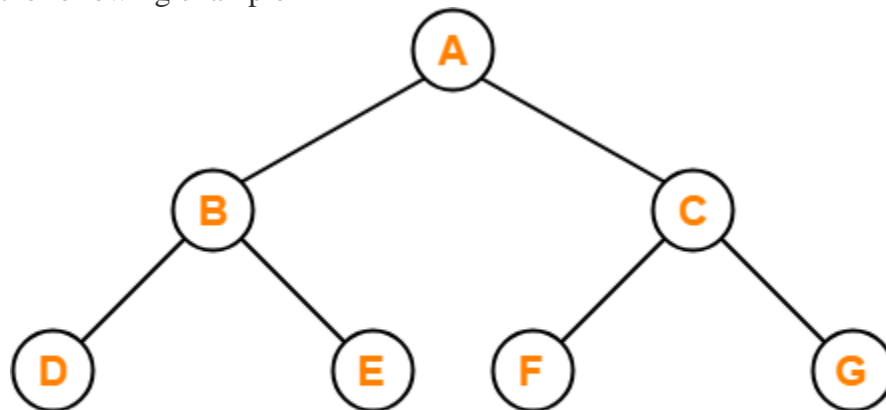
### Algorithm-

1. Traverse the left sub tree i.e. call Inorder (left sub tree)
2. Visit the root
3. Traverse the right sub tree i.e. call Inorder (right sub tree)

**Left → Root → Right**

- **Example**

Consider the following example-



**Inorder Traversal : D , B , E , A , F , C , G**

### **Application-**

- Inorder traversal is used to get infix expression of an expression tree.

