# Inorder, Preorder, and Postorder Traversal (DFS Research)

## 1. Preorder Traversal (Root → Left → Right)

Visit the root node first.  
Then traverse the left subtree.  
Finally, traverse the right subtree.

Use case: Used to create a copy of the tree or get prefix expressions in expression trees.

Example Order: A → B → D → E → C → F → G

## 2. Inorder Traversal (Left → Root → Right)

First, visit the left subtree.  
Then visit the root node.  
Finally, visit the right subtree.

Use case: Gives nodes in sorted (ascending) order for Binary Search Trees (BSTs).

Example Order: D → B → E → A → F → C → G

## 3. Postorder Traversal (Left → Right → Root)

Visit the left subtree first.  
Then the right subtree.  
Finally, visit the root node.

Use case: Useful for deleting or freeing nodes, and getting postfix expressions in expression trees.

Example Order: D → E → B → F → G → C → A