

## # Tree Traversal and Maximum Depth in Python

```
class TreeNode:
    def __init__(self, val):
        self.val = val
        self.left = None
        self.right = None

def inorderTraversal(root):
    if root:
        inorderTraversal(root.left)
        print(root.val, end=' ')
        inorderTraversal(root.right)

def preorderTraversal(root):
    if root:
        print(root.val, end=' ')
        preorderTraversal(root.left)
        preorderTraversal(root.right)

def postorderTraversal(root):
    if root:
        postorderTraversal(root.left)
        postorderTraversal(root.right)
        print(root.val, end=' ')

def maxDepth(root):
    if root is None:
        return 0
    left_depth = maxDepth(root.left)
    right_depth = maxDepth(root.right)
    return max(left_depth, right_depth) + 1

# Example Tree:
#           1
#         /  \
#       2    3
#      /  \
#     4    5

root = TreeNode(1)
root.left = TreeNode(2)
root.right = TreeNode(3)
root.left.left = TreeNode(4)
```

```
root.left.right = TreeNode(5)

print("Inorder Traversal:")
inorderTraversal(root)
print("\nPreorder Traversal:")
preorderTraversal(root)
print("\nPostorder Traversal:")
postorderTraversal(root)

print("\nMaximum Depth of Tree:", maxDepth(root))
```