```
#include <stdio.h>
#include <stdlib.h>
struct TreeNode {
   int data;
   struct TreeNode *left;
   struct TreeNode *right;
struct TreeNode* createNode(int data) {
    struct TreeNode* newNode = (struct TreeNode*)malloc(sizeof(struct
TreeNode));
   newNode->data = data;
   newNode->left = NULL;
   newNode->right = NULL;
   return newNode;
struct TreeNode* insert(struct TreeNode* root, int data) {
   if (root == NULL) {
       return createNode(data);
            root->left = insert(root->left, data);
            root->right = insert(root->right, data);
void inorder(struct TreeNode* root) {
       inorder(root->left);
       printf("%d ", root->data);
       inorder(root->right);
void postorder(struct TreeNode* root) {
   if (root != NULL) {
       postorder(root->left);
       postorder(root->right);
       printf("%d ", root->data);
void preorder(struct TreeNode* root) {
   if (root != NULL) {
```

```
printf("%d ", root->data);
       preorder(root->left);
       preorder(root->right);
void display(struct TreeNode* root) {
   if (root != NULL) {
       printf("Inorder traversal: ");
       inorder(root);
       printf("\n");
       printf("Postorder traversal: ");
       postorder(root);
       printf("\n");
       printf("Preorder traversal: ");
       preorder(root);
       printf("\n");
       printf("Tree is empty.\n");
void main() {
   root = insert(root, 50);
   insert(root, 30);
   insert(root, 20);
   insert(root, 40);
   insert(root, 70);
   insert(root, 60);
   insert(root, 80);
   printf("Elements in the tree:\n");
   display(root);
```

Elements in the tree:

Inorder traversal: 20 30 40 50 60 70 80 Postorder traversal: 20 40 30 60 80 70 50 Preorder traversal: 50 30 20 40 70 60 80

Struct noole & struct

Struct

newhoole

newhoole