

BINARY TREE TRAVERSAL

```
#include <stdio.h>
#include <stdlib.h>
struct node {
    int item;
    struct node* left;
    struct node* right;
};

void inorderTraversal(struct node* root){
    if(root==NULL) return;
    inorderTraversal(root->left);
    printf("%d ",root->item);
    inorderTraversal(root->right);
}

void preorderTraversal(struct node* root){
    if(root==NULL) return;
    printf("%d ",root->item);
    preorderTraversal(root->left);
    preorderTraversal(root->right);
}

void postorderTraversal(struct node* root){
    if(root == NULL) return;
    postorderTraversal(root->left);
    postorderTraversal(root->right);
    printf("%d ", root->item);
}

struct node* createNode(int value){
    struct node* newNode=(struct node*)malloc(sizeof(struct node));
    newNode->item=value;
    newNode->left=NULL;
    newNode->right=NULL;
    return newNode;
}

struct node* insertLeft(struct node* root, int value){
    root->left=createNode(value);
    return root->left;
}

struct node* insertRight(struct node* root, int value) {
    root->right=createNode(value);
    return root->right;
}

int main(){
    struct node* root = createNode(1);
    insertLeft(root, 12);
    insertRight(root, 9);
    insertLeft(root->left, 5);
    insertRight(root->left, 6);
    printf("Inorder traversal \n");
    inorderTraversal(root);
}
```

```
printf("\nPreorder traversal \n");
preorderTraversal(root);
printf("\nPostorder traversal \n");
postorderTraversal(root);
}
```

OUTPUT:

```
Inorder traversal
5 12 6 1 9
Preorder traversal
1 12 5 6 9
Postorder traversal
5 6 12 9 1
-----
Process exited after 0.08919 seconds with return value 0
Press any key to continue . . .
```