

```
//Binary Tree traversal in C

#include <stdio.h>

#include <stdlib.h>

struct node {

    int item;

    struct node* left;

    struct node* right;

};

// Inorder traversal

void inorderTraversal(struct node* root) {

    if (root == NULL) return;

    inorderTraversal(root->left);

    printf("%d ->", root->item);

    inorderTraversal(root->right);

}

// Preorder traversal

void preorderTraversal(struct node* root) {

    if (root == NULL) return;

    printf("%d ->", root->item);

    preorderTraversal(root->left);

    preorderTraversal(root->right);

}

// Postorder traversal

void postorderTraversal(struct node* root) {
```

```

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

// Create a new Node
struct node* createNode(value) {
    struct node* newNode = malloc(sizeof(struct node));
    newNode->item = value;
    newNode->left = NULL;
    newNode->right = NULL;
    return newNode;
}

// Insert on the left of the node
struct node* insertLeft(struct node* root, int value) {
    root->left = createNode(value);
    return root->left;
}

// Insert on the right of the node
struct node* insertRight(struct node* root, int value) {
    root->right = createNode(value);
    return root->right;
}

int main() {

```

```
struct node* root = createNode(1);  
insertLeft(root, 2);  
insertRight(root, 3);  
insertLeft(root->left, 4);  
printf("Inorder traversal \n");  
inorderTraversal(root);  
printf("\nPreorder traversal \n");  
preorderTraversal(root);  
printf("\nPostorder traversal \n");  
postorderTraversal(root);  
}
```

OUTPUT:

Inorder traversal

4 ->2 ->1 ->3 ->

Preorder traversal

1 ->2 ->4 ->3 ->

Postorder traversal

4 ->2 ->3 ->1 ->