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#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(value)
{

```

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    struct node* newNode = 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);
}

```

```
Inorder traversal
5 ->12 ->6 ->1 ->9 ->
Preorder traversal
1 ->12 ->5 ->6 ->9 ->
Postorder traversal
5 ->6 ->12 ->9 ->1 ->
-----
Process exited after 0.008194 seconds with return value 0
Press any key to continue . . . █
```