

```

#include<stdio.h>
#include<stdlib.h>
struct Node
{
    int data;
    struct Node*left;
    struct Node*right;
};
void preorder(struct Node*root)
{
    if(root==NULL)
        return;
    printf("%d",root->data);
    preorder(root->left);
    preorder(root->right);
}
void inorder(struct Node*root)
{
    if(root==NULL)
        return;
    inorder(root->left);
    printf("%d",root->data);
    inorder(root->right);
}
void postorder(struct Node*root)
{
    if(root==NULL)
        return;
    postorder(root->left);
    postorder(root->right);
    printf("%d",root->data);
}
struct Node *insertNode(struct Node*root,int data);
struct Node *createNode(int);
int main()
{
    struct Node *root=NULL;
    int ch,inputdata;
    do
    {
        printf("\n\n1.insert\n2.preorder\n3.inorder\n4.postorder\n");
        printf("\nenter choice");
        scanf("%d",&ch);
        switch(ch)
        {
            case 1:
                printf("\nenter data to be inserted:");
                scanf("%d",&inputdata);
                root =insertNode(root,inputdata);
                break;
            case 2:
                printf("\npreorder traversal\n");

```

```

        preorder(root);
        break;
    case 3:
        printf("\ninorder traversal\n");
        inorder(root);
        break;
    case 4:
        printf("\npostorder traversal\n");
        postorder(root);
        break;
    }
}
while(ch<5);
return 0;
}
struct Node *insertNode(struct Node*root,int data)
{
    if(root==NULL)
        root=createNode(data);
    else if(data<=root->data)
        root->left=insertNode(root->left,data);
    else
        root->right=insertNode(root->right,data);
    return root;
}
struct Node*createNode(int data)
{
    struct Node*newNode=(struct Node*)malloc(sizeof(struct Node));
    newNode->data=data;
    newNode->left=NULL;
    newNode->right=NULL;
    return newNode;
}

```

1.insert
 2.preorder
 3.inorder
 4.postorder

enter choice1

enter data to be inserted:1

1.insert
 2.preorder
 3.inorder
 4.postorder

enter choice1

enter data to be inserted:2

1.insert
2.preorder
3.inorder
4.postorder

enter choice1

enter data to be inserted:3

1.insert
2.preorder
3.inorder
4.postorder

enter choice1

enter data to be inserted:7

1.insert
2.preorder
3.inorder
4.postorder

enter choice1

enter data to be inserted:9

1.insert
2.preorder
3.inorder
4.postorder

enter choice1

enter data to be inserted:5

1.insert
2.preorder
3.inorder
4.postorder

enter choice1

enter data to be inserted:8

1.insert
2.preorder
3.inorder
4.postorder

enter choice2

preorder traversal
1237598

1.insert
2.preorder
3.inorder
4.postorder

enter choice3

inorder traversal
1235789

1.insert
2.preorder
3.inorder
4.postorder

enter choice4

postorder traversal
5897321

1.insert
2.preorder
3.inorder
4.postorder

enter choice