Esteron, Jenel F.
CPE21S1

```
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#include <stdio.h>
#include <iostream>

using namespace std;

struct Node{
    int data;
    struct Node *left, *right;
};
Node* newNode(int data)
{
    Node* temp=new Node;
    temp->data =data;
    temp->left=temp->right=NULL;
    return temp;
}

void inorder(struct Node* Node){
    if (Node == NULL)
        return;
    inorder(Node->left);
    cout << Node->data << " ";
    inorder(Node->right);
}

void preorder(struct Node* Node){
    if (Node == NULL)
        return;
    cout << Node->data << " ";
    preorder(Node->left);
    preorder(Node->right);
}
void postorder(struct Node* Node){
    if (Node == NULL)
        return;
    postorder(Node->left);
    postorder(Node->right);
    cout << Node->data << " ";
}
```

```
void Menu(){
    struct Node* root=newNode(1);
    root->left=newNode(2);
    root->right=newNode(3);
    root->left->left=newNode(4);
    root->left->right=newNode(5);

    int choice;
    cout<<"Enter what traversal of the tree to use: ";
    cin>>choice;
    switch (choice){
        case 1:
            inorder(root);
            break;
        case 2:
            preorder(root);
            break;
        case 3:
            postorder(root);
            break;
        default:
            break;
    }
}

int main()
{
    Menu();
    char choice1;
    cout<<"\nDo you want to exit program(y/n): ";
    cin>>choice1;
    while (choice1!='y'){
        Menu();
        cout<<"\nDo you want to exit program(y/n): ";
        cin>>choice1;
    }
    return 0;
}
```

```
Enter what traversal of the tree to use: 1
4 2 5 1 3
Do you want to exit program(y/n): n
Enter what traversal of the tree to use: 2
1 2 4 5 3
Do you want to exit program(y/n): n
Enter what traversal of the tree to use: 3
4 5 2 3 1
Do you want to exit program(y/n): y
```