

```
#include <iostream>
```

```
struct Node {  
    int data;  
    Node* left;  
    Node* right;  
  
    Node(int value) : data(value), left(nullptr), right(nullptr) {}  
};
```

```
void preorderTraversal(Node* root) {  
    if (root == nullptr) {  
        return;  
    }  
  
    std::cout << root->data << " ";  
    preorderTraversal(root->left);  
    preorderTraversal(root->right);  
}
```

```
void inorderTraversal(Node* root) {  
    if (root == nullptr) {  
        return;  
    }  
  
    inorderTraversal(root->left);  
    std::cout << root->data << " ";  
    inorderTraversal(root->right);  
}
```

```
void postorderTraversal(Node* root) {  
    if (root == nullptr) {  
        return;  
    }  
  
    postorderTraversal(root->left);  
    postorderTraversal(root->right);
```

```

std::cout << root->data << " ";
}

int main() {
    // ساخت درخت زیر
    //      1
    //     /\
    //    2  3
    //   /\
    //  4  5
    Node* root = new Node(1);
    root->left = new Node(2);
    root->right = new Node(3);
    root->left->left = new Node(4);
    root->left->right = new Node(5);

    std::cout << "Preorder Traversal: ";
    preorderTraversal(root);
    std::cout << std::endl;

    std::cout << "Inorder Traversal: ";
    inorderTraversal(root);
    std::cout << std::endl;

    std::cout << "Postorder Traversal: ";
    postorderTraversal(root);
    std::cout << std::endl;

    return 0;
}

```