

## Binary Tree:

```
import java.util.Scanner;

public class BinaryTree {
    static class Node {
        int data;
        Node left, right;

        Node(int data) {
            this.data = data;
            left = right = null;
        }
    }

    Scanner input = new Scanner(System.in);

    Node create() {
        System.out.print("Enter data: ");
        int data = input.nextInt();
        Node newNode = new Node(data);
        if (data == -1) {
            return null;
        }
        System.out.println("Enter Left child");
        newNode.left = create();
        System.out.println("Enter Right child");
        newNode.right = create();
        return newNode;
    }

    void preOrder(Node root) {
        if (root == null) {
            return;
        }
        System.out.print(root.data + " ");
        preOrder(root.left);
        preOrder(root.right);
    }

    void inOrder(Node root) {
        if (root == null) {
            return;
        }
        inOrder(root.left);
```

```

        System.out.print(root.data + " ");
        inOrder(root.right);
    }

    void postOrder(Node root) {
        if (root == null) {
            return;
        }
        postOrder(root.left);
        postOrder(root.right);
        System.out.print(root.data + " ");
    }

    public static void main(String[] args) {
        BinaryTree tree = new BinaryTree();
        Node root = tree.create();
        System.out.print("PreOrder: ");
        tree.preOrder(root);
        System.out.print("\nInOrder: ");
        tree.inOrder(root);
        System.out.print("\nPostOrder: ");
        tree.postOrder(root);
    }
}

```

## Binary Search Tree:

```

public class BinarySearchTree {
    static class Node {
        int key;
        Node left, right;
        Node(int data) {
            this.key = data;
            left = right = null;
        }
    }

    Node root = null;

    void insertNode(int key) {
        root = insert(root, key);
    }

    Node insert(Node root, int key) {

```

```
    if (root == null) {
        root = new Node(key);
        return root;
    }

    if (key < root.key) {
        root.left = insert(root.left, key);
    } else if (key > root.key) {
        root.right = insert(root.right, key);
    }
    return root;
}

public static void main(String[] args) {
    BinarySearchTree tree = new BinarySearchTree();
    tree.insertNode(5);
    tree.insertNode(3);
    tree.insertNode(2);
    tree.insertNode(4);
    tree.insertNode(7);
    tree.insertNode(6);
    tree.insertNode(8);
}
}
```