LAPORAN
JOBSHEET 12 BINARY TREE

Disusun Oleh :

Dimas Bagus W.S (1731710063) MI 1B

PRODI D-III MANAJEMEN INFORMATIKA

JURUSAN TEKNOLOGI INFORMATIKA

POLITEKNIK NEGERI MALANG

TAHUN 2018

TUGAS

1. Penambahan Method di BinaryTree dengan cara Rekursif

```
Node addRekursif(int data, Node current){
    if(current == null){
       current = new Node (null,data,null);
    }else if(data < current.data){
       current.left = addRekursif(data,current.left);
    }else if(data > current.data){
       current.right = addRekursif(data, current.right);
    }else{
        current = current;
    }
    return current;
}
```

2. Menambahkan Method untuk nilai paling kecil dan nilai paling besar

```
Node min(){
     Node current = root;
     while (current.left != null) {
         current = current.left;
     }
     return current;
}

Node max(){
    Node current = root;
     while (current.right != null) {
         current = current.right;
     }
     return current;
}
```

3. Menampilkan data Leaf

```
void getLeaf(Node node) {
    if (node == null) {
        return;
    }
    if (node.left == null && node.right == null) {
        System.out.print(node.data + " ");
    } else {
        getLeaf(node.left);
        getLeaf(node.right);
    }
}
```

4. Menampilkan jumlah Leaf

```
int getLeafCount(Node node) {
    if (node == null)
        return 0;
    if (node.left == null && node.right == null)
        return 1;
    else
        return getLeafCount(node.left) + getLeafCount(node.right);
}
```

5. Modifikasi Class Main

```
package Praktikum;
import java.util.Scanner;

public class BinaryTreeMain {
    public static void main(String[] args) {
        BinaryTree bt = new BinaryTree();
        boolean status = true;
        int input;
        while (status) {
            System.out.println("BINARY TREE LIST MENU");
            System.out.println("================================");
            System.out.println("Pilih menu");
            System.out.println("1. Add");
            System.out.println("2. Delete");
            System.out.println("3. Find");
            System.out.println("4. Traverse In-Order");
            System.out.println("5. Traverse Pre-Order");
            System.out.println("6. Traverse Post-Order");
            System.out.println("7. Keluar");
            System.out.println("================================");
            System.out.print("Pilih : ");
            Scanner sc = new Scanner(System.in);
            int menu = sc.nextInt();
            System.out.println("================================");
```