Appendix

Source Code include on CD

LAMPIRAN

1. penempatan.java

```java
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.event.*;

class penempatan extends JFrame implements ActionListener
{
        private int pjg_board, lbr_board;
        Node2 brngku;
        Node boardku,newNode;
        int option=0;
        Container contentArea = getContentPane();
        kanvas draw;
        BinaryTree sort;

//-Gui semester5-----------------------------
        JLabel ukuranBoard, pjg1, lbr1, test, edit;
        JTextField pjgBoard, lbrBoard;
        JButton Hasil,btnReset,Clear,saving,exit,browse;
        JRadioButton price, size;
        JPanel panel0,panel1, panel2, panelku,kosong;
        private JFrame reset;

//----TEXT edite-----------------------------
        private bacaTulisFile toEdit;
        JTextArea edittext;
        JScrollPane EditScrool;
//-------------------------------------------


        public penempatan()
```

```java
{
            setTitle ("Progam Display Area");
        setResizable(false);
    setKomponen();
    setLayout();
    setBounds(100,100,250,350);
        }
    //-Gui semester5-----------------------------
    public void setKomponen()
        {

                ukuranBoard= new JLabel("Ukuran Board :");
                pjg1= new JLabel();
    edit= new JLabel(" Edit Data :");
    lbr1= new JLabel();
    test= new JLabel("");
    test.setBorder(BorderFactory.createLineBorder(Color.black,1));
    pjgBoard= new JTextField(5);
    lbrBoard= new JTextField(5);
    edittext = new JTextArea(20,25);


    //--radio button-----------------------------
    price= new JRadioButton("Mahal- Murah");
    size= new JRadioButton("Besar - Kecil");
    price.addActionListener(new RadioButtonListener());
    size.addActionListener(new RadioButtonListener());
    ButtonGroup grupmenu= new ButtonGroup();
    grupmenu.add(price);
    grupmenu.add(size);

    //---button----------------------------------
                btnReset=new JButton("Reset");
    Clear=new JButton("Clear");
                Hasil= new JButton("Display");
        saving = new JButton("SAVE");
    browse=new JButton("Browse");
    exit=new JButton("quit");
```

```java
            btnReset.addActionListener (new ResetListener());
            Clear.addActionListener (new ClearListener());
                        Hasil.addActionListener(this);
                        saving.addActionListener(new SaverListener());
            browse.addActionListener (new browseListener());
            exit.addActionListener (new exitListener());


            //-----srcooler------------------------------
                        EditScrool = new JScrollPane(edittext);

EditScrool.setVerticalScrollBarPolicy(ScrollPaneConstants.VERTICAL_SCROLLBAR_A
LWAYS);
                        EditScrool.setBorder(BorderFactory.createEmptyBorder(0,5,0,5));


        }

        //-Gui semester5------------------------------
        public void setLayout()
        {
                                kosong=new JPanel(new
FlowLayout(FlowLayout.LEFT));

            panel0= new JPanel (new FlowLayout(FlowLayout.LEFT));
            panel0.add(ukuranBoard);
            panel0.add(pjgBoard);
            panel0.add(lbrBoard);

            panel1= new JPanel(new FlowLayout(FlowLayout.LEFT));
            panel1.add(price);
            panel1.add(size);

            panel2= new JPanel(new FlowLayout(FlowLayout.LEFT));
            panel2.add(Hasil);
            panel2.add(Clear);
            panel2.add(exit);

            JPanel panel3=new JPanel(new FlowLayout(FlowLayout.LEFT));
```

```
        panel3.add(edit);

        JPanel panel4= new JPanel(new FlowLayout(FlowLayout.RIGHT));
        panel4.add(browse);
        panel4.add(saving);

        JPanel panel5= new JPanel(new GridLayout(2,1));
        panel5.add(EditScrool);
        panel5.add(panel4);

        panelku= new JPanel();
        panelku.setLayout(new BoxLayout(panelku,BoxLayout.Y_AXIS));
                panelku.add(panel0);
        panelku.add(panel1);
        panelku.add(panel2);
        panelku.add(kosong);
        panelku.add(panel3);
        panelku.add(panel5);
        contentArea.add(panelku);
        }

//rumus berdasar penelitian matematika
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public void actionPerformed(ActionEvent event)
    {

        pjg1.setText("Panjang Board "+pjg_board);
        lbr1.setText("Lebar Board "+lbr_board);
        this.lbr_board=Integer.parseInt(lbrBoard.getText());
        this.pjg_board=Integer.parseInt(pjgBoard.getText());

        //dibaik buat koordinat board awal
        TreeBoard awal= new TreeBoard();
        if(pjg_board>lbr_board)
awal.insert(pjg_board,lbr_board,0,0,pjg_board,lbr_board);
        else awal.insert(lbr_board,pjg_board,0,0,lbr_board,pjg_board);
```

```java
bacaTulisFile barangdisplay = new bacaTulisFile("benda.txt");
String content=barangdisplay.baca();
String split1[];
split1=content.split("\n");
sort= new BinaryTree();
for (int i=0; i<split1.length; i++)
{
        String barangku[];
        barangku=split1[i].split(",");
        barang masuk;


        if(Integer.parseInt(barangku[1])>Integer.parseInt(barangku[2]))
masuk=newbarang(barangku[0],Integer.parseInt(barangku[1]),Integer.parseInt(barangku[2])
,Integer.parseInt(barangku[3]));
        else
masuk=newbarang(barangku[0],Integer.parseInt(barangku[2]),Integer.parseInt(barangku[1])
,Integer.parseInt(barangku[3]));
        if(option==1)
        {
                sort.insertMahal(masuk);

        }
        else
        {
                sort.insertSize(masuk);

        }
}
do
{
                brngku=sort.Maks();
                brngku.setFlag();
                System.out.println("Isi : "+brngku.getBarang().getName());
                System.out.println("Isi : "+brngku.getValue());
                int xaw,yaw,xak,yak;
                int bag1,bag2;
                int pjgB, lbrB;
                do
        {
```

```java
if(awal.adaTempat(brngku.getBarang()))
{
        //Ambil selisih paling dikit
        boardku=awal.getMin(brngku.getBarang());
        /Masukkan barang
        boardku.setBarang(brngku.getBarang());
        boardku.setFlagIsi();
        brngku.setMasuk();
        //Masukkan Koordinat
        xaw=boardku.getKorBoardxAwal();
        yaw=boardku.getKorBoardyAwal();
if(boardku.getPBoard()<boardku.getLBoard())
{
        boardku.getBarang().balikPL();
}
xak=boardku.getKorBoardxAwal()+boardku.getBarang().getPjngBnd();
yak=boardku.getKorBoardyAwal()+boardku.getBarang().getLbrBnd();
boardku.getBarang().setKoordinat(xaw,yaw,xak,yak);
bag1=boardku.getPBoard()-boardku.getBarang().getPjngBnd();
bag2=boardku.getLBoard()-boardku.getBarang().getLbrBnd();
int korBndXawal=xaw;
int korBndXakhir=xak;
int korBndYawal=yaw;
int korBndYakhir=yak;
//Hitung Koordinat
if(bag1>bag2)
{
        //Anak 1 bag1
        if(bag1!=0)
{
pjgB=bag1;
lbrB=boardku.getLBoard();
//Masukkan Koordinat
//xaw=boardku.getBarang().getKorBndxAkhir();
xaw=korBndXakhir;
yaw=boardku.getKorBoardyAwal();
```

```java
xak=boardku.getKorBoardxAkhir();
yak=boardku.getKorBoardyAkhir();
newNode= new Node(pjgB,lbrB,xaw,yaw,xak,yak);
boardku.leftChild=newNode;
}
        //Anak2 bag1
        if(bag2!=0)
{
        pjgB=boardku.getBarang().getPjngBnd();
        lbrB=bag2;
        //Masukkan Koordinat
        xaw=boardku.getKorBoardxAwal();
        //yaw=boardku.getBarang().getKorBndyAkhir();
        yaw=korBndYakhir;
        //xak=boardku.getBarang().getKorBndxAkhir();
        xak=korBndXakhir;
        yak=boardku.getKorBoardyAkhir();
        newNode= new Node(pjgB,lbrB,xaw,yaw,xak,yak);
        boardku.rightChild=newNode;
        System.out.println("Pjg board ="+pjgB);
        System.out.println("Lbr board ="+lbrB);
System.out.println("Koordinat Anak2 Awal ("+xaw+","+yaw+") Akhir
("+xak+","+yak+")");
        }
        }
        else
{
//Anak 1 bag2
if(bag1!=0)
{
        pjgB=bag1;
        lbrB=boardku.getBarang().getLbrBnd();
        //Masukkan Koordinat
        //xaw=boardku.getBarang().getKorBndxAkhir();
        xaw=korBndXakhir;
        yaw=boardku.getKorBoardyAwal();
        xak=boardku.getKorBoardxAkhir();
```

```
                    /yak=boardku.getBarang().getKorBndyAkhir();
                    ak=korBndYakhir;
                    ewNode= new Node(pjgB,lbrB,xaw,yaw,xak,yak);
                    oardku.leftChild=newNode;
                    ystem.out.println("Pjg board ="+pjgB);
                    ystem.out.println("Lbr board ="+lbrB);
System.out.println("Koordinat Anak3 Awal ("+xaw+","+yaw+") Akhir
("+xak+","+yak+")");
                    }
                            //Anak2 bag2
                    if(bag2!=0)
                    {
                            pjgB=boardku.getPBoard();
                            lbrB=bag2;
                            //Masukkan Koordinat
                            //xaw=boardku.getBarang().getKorBndxAwal();
                            //yaw=boardku.getBarang().getKorBndyAkhir();
                            xaw=korBndXawal;
                            yaw=korBndYakhir;
                            xak=boardku.getKorBoardxAkhir();
                            yak=boardku.getKorBoardyAkhir();
                            newNode= new Node(pjgB,lbrB,xaw,yaw,xak,yak);
                            boardku.rightChild=newNode;
                            System.out.println("Pjg board ="+pjgB);
                            System.out.println("Lbr board ="+lbrB);
System.out.println("Koordinat Anak4 Awal ("+xaw+","+yaw+") Akhir
("+xak+","+yak+")");
                    }
                    }
                    }
            else brngku.setFull();
            }
            while(!brngku.Full());
            //-----------------------------------
            }
            while(sort.adaBarang());
```

```
                                buatAnimasi();

                }
        // referensi oleh hendarta A.S: mengakses method dan data dari class lain
                public void buatAnimasi()
                {
                        //jcanvas test
                        panelku.setVisible(false);
                        draw=new kanvas();
                        nt pjg1, lbr1;
                        if (pjg_board<lbr_board)
                        {
                                pjg1=lbr_board;
                                lbr1=pjg_board;
                        }
                        else
                        {
                                pjg1=pjg_board;
                                lbr1=lbr_board;
                        }

                reset=new JFrame();
                reset.add(btnReset);
                reset.pack();
                reset.setVisible(true);
                contentArea.add(draw);
                setSize(pjg1*3+30,lbr1*2+100);
                setResizable(false);
                }
                /kanvas ref:tugas bu rosita angkt2007
                class kanvas  extends Canvas
                {
                ublic void paint(Graphics g)
                        {
                                g.setColor(Color.blue);
                                int p=0;
                                int l=0;
                                if (pjg_board<lbr_board)
```

```java
        {
                p=lbr_board;
                l=pjg_board;
        }
        else
        {
                l=lbr_board;
                p=pjg_board;
        }
                g.drawRect(30,40, p*2,l*2);
                g.setColor(Color.red);
                g.drawLine(20,40,20,l*2+60);
                g.drawLine(30,20,p*2+40,20);
                int w=0,q=40;
                for(int a=0;a<=l;)
                {
                        g.drawString(""+w,5,q);
                        g.drawLine(20,q,25,q);
                        w=w+10;
                        a=a+10;
                        q=(a*2)+40;
                }

                        int u=0,o=30;
                        for(int a=0;a<=p;)
                        {
                                g.drawString(""+u,o,15);
                                g.drawLine(o,25,o,15);
                                u=u+10;
                                a=a+10;
                                o=(a*2)+30;
                        }
                while(sort.adaBarang2())
                {
                        brngku=sort.Maks2();
                        brngku.setSudah();
```

```java
                                barang bantu=brngku.getBarang();
                                while(bantu.mshBisa())
                                {
                                koordinat bantu2= bantu.getKordinat();
                                for(int i=0;i<50+3;i++)
                                {
                                        g.setColor(Color.white);
g.fillRect(bantu2.getKorBndxAwal()*2+30, bantu2.getKorBndyAwal()*2+40,
(bantu2.getKorBndxAkhir()-bantu2.getKorBndxAwal())*2,(bantu2.getKorBndyAkhir()-
bantu2.getKorBndyAwal())*2);
                                        g.setColor(Color.red);
g.drawRect(bantu2.getKorBndxAwal()*2+30, bantu2.getKorBndyAwal()*2+40,
(bantu2.getKorBndxAkhir()-bantu2.getKorBndxAwal())*2,(bantu2.getKorBndyAkhir()-
bantu2.getKorBndyAwal())*2);
                                        g.setColor(Color.black);
g.drawString(""+bantu.getPjngBnd(),((bantu2.getKorBndxAwal()*2+30)+
(bantu.getPjngBnd()/2)), bantu2.getKorBndyAwal()*2+40);
g.drawString(""+bantu.getLbrBnd(), bantu2.getKorBndxAwal()*2+30,
((bantu2.getKorBndyAwal()*2+50)+(bantu.getLbrBnd()/2)));
g.drawString(""+bantu.getName(),((bantu2.getKorBndxAwal()*2+21)+
(bantu.getPjngBnd()*2)),((bantu2.getKorBndyAwal()*2+40)+(bantu.getLbrBnd()*2)));
                        try
                        {
                                Thread.sleep(10);
                        }
                        catch(Exception e)
                        {
                        }
                        }
                        }
                pack();
                }
        }
```

```java
class SaverListener implements ActionListener
{
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
    public void actionPerformed(ActionEvent event)
    {
        String bacaini="";
        toEdit = new bacaTulisFile("benda.txt");
        bacaini= toEdit.baca();
        toEdit.nulis(""+edittext.getText());
        System.out.println("saving data succes");
        return;
    }
}

class browseListener implements ActionListener
{
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
    public void actionPerformed(ActionEvent event)
    {
        String browser="";

        toEdit= new bacaTulisFile("benda.txt");
        browser= toEdit.baca();
        edittext.setText(""+browser);
    }
}

class RadioButtonListener implements ActionListener
{
    public void actionPerformed(ActionEvent e)
    {

        if (e.getSource()==price)
        option=1;
        else
        option=2;
```

```java
                }
        }
class ResetListener implements ActionListener
{
        public void actionPerformed(ActionEvent ea)
        {
        System.out.println("reset n dispose jcanvas");

penempatan nama= new penempatan();
nama.setVisible(true);
                        dispose();
                        reset.dispose();
        }

}
class ClearListener implements ActionListener
{
        public void actionPerformed(ActionEvent ea)
        {
        System.out.println("reset main menu");

penempatan nama= new penempatan();
nama.setVisible(true);
                        dispose();
        }

}
class exitListener implements ActionListener
{
        public void actionPerformed(ActionEvent ea)
        {

penempatan nama= new penempatan();
nama.setVisible(false);
                        dispose();
                        System.out.println("exit program");
        }
```

```
        }

public static void main(String[] args)
{
        penempatan nama= new penempatan();
 nama.setVisible(true);
}
}
```

BinaryTree.java

2. BinaryTree.java

```java
class BinaryTree
{
        private Node2 root;
        private Node2 max;
        private Node2 yuk;
        int msk;


// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public Node2 Maks()
        {
                msk=0;
                inOrder(root);

                return max;
        }

// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public Node2 Maks2()
        {
                msk=0;
                bantuDraw(root);

                return yuk;
        }

        public boolean adaBarang2()
        {
                msk=0;
                bantuDraw(root);

                if(msk==1) return true;
                else return false;
        }

// referensi oleh hendarta A.S: mengakses method dan data dari class lain
```

```java
public void bantuDraw(Node2 node)
{
        if(node!=null){
                //System.out.println("Root : "+node.getValue());
                //System.out.println("Baca KIRI -nya "+node.getValue());
                bantuDraw(node.leftChild);

                //System.out.print("CETAK ISI NODE : "+node.getValue());
                //System.out.println("Nama Barang : "+node.getMasuk());
                if(node.getMasuk()==1 && node.getSudah()==0 &&
msk==0)
                {
                        //System.out.println("^^");
                        msk=1;
                        yuk=node;
                }

                //System.out.println("Baca KANAN -nya "+node.getValue());
                bantuDraw(node.rightChild);
        }
}
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
public void inOrder(Node2 node)
{
        if(node!=null){
                //System.out.println("Root : "+node.getValue());
                //System.out.println("Baca KIRI -nya "+node.getValue());
                inOrder(node.leftChild);

                //System.out.print("CETAK ISI NODE : "+node.getValue());
                //System.out.println("Nama Barang : "+node.urut.getName());
                if(node.getFlag()==0 && msk==0)
                {
                        msk=1;
                        max=node;
                }
```
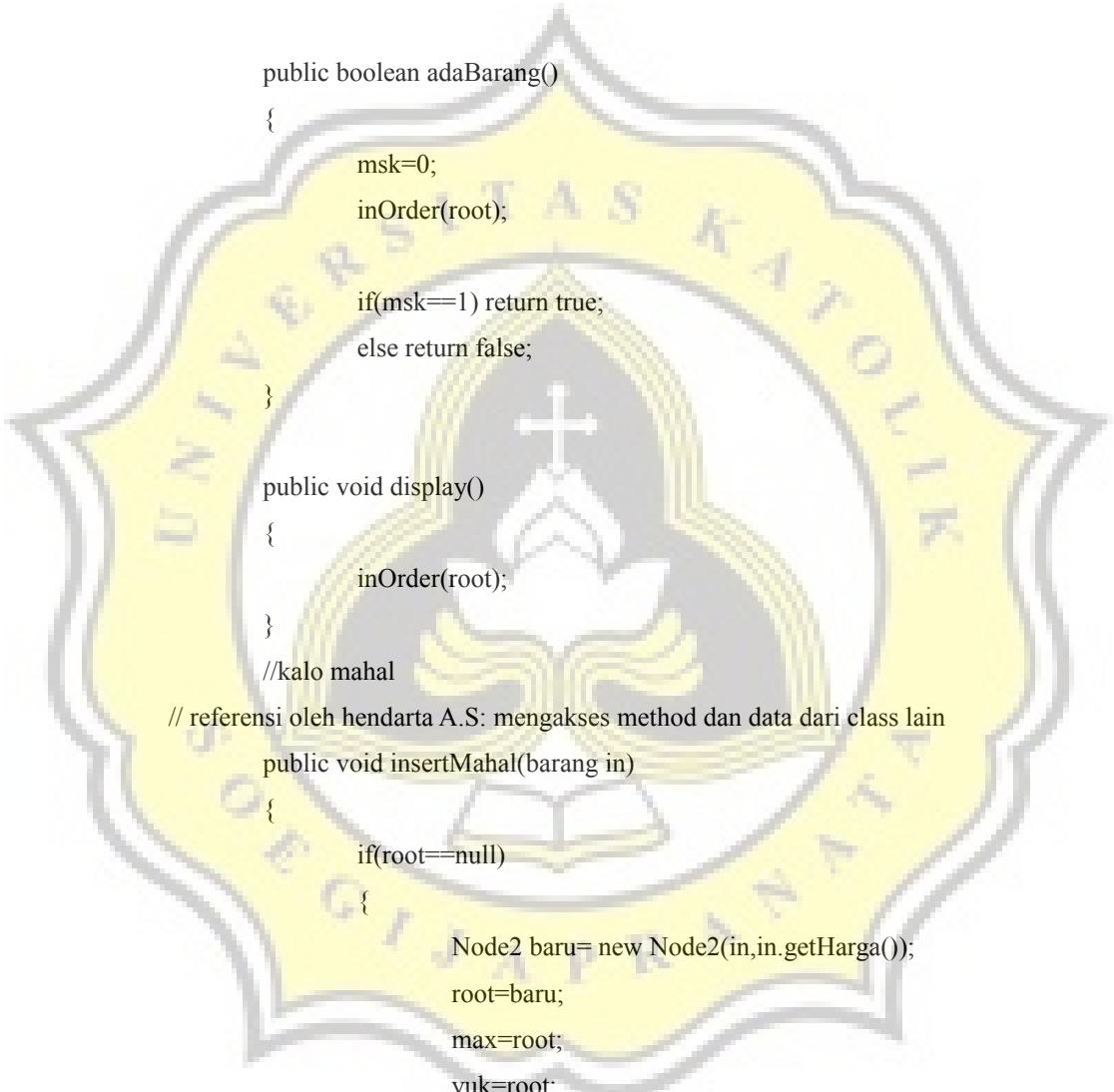
```java
                         //System.out.println("Baca KANAN -nya "+node.getValue());
                         inOrder(node.rightChild);
              }
       }


       public boolean adaBarang()
       {
              msk=0;
              inOrder(root);

              if(msk==1) return true;
              else return false;
       }

       public void display()
       {
              inOrder(root);
       }
       //kalo mahal
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
       public void insertMahal(barang in)
       {
              if(root==null)
              {
                     Node2 baru= new Node2(in,in.getHarga());
                     root=baru;
                     max=root;
                     yuk=root;
              }
              else
              {
                     Node2 current=root;
                     Node2 parent;

                     while(true)
```

```java
                    {
                        parent=current;
                        if(in.getHarga()>current.getValue())
                        {
                            current=current.leftChild;
                            if(current==null)
                            {
                                Node2 baru= new
Node2(in,in.getHarga());
                                parent.leftChild= baru;
                                return;
                            }
                        }
                        else
                        {
                            current=current.rightChild;
                            if(current==null)
                            {
                                Node2 baru= new
Node2(in,in.getHarga());
                                parent.rightChild= baru;
                                return;
                            }
                        }
                    }
            }
        // kalo milih yang besar
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public void insertSize(barang in)
        {
                if(root==null)
                {
                        Node2 baru= new Node2(in,in.hitKell());
                        root=baru;
                        max=root;
```

```java
                    yuk=root;
            }
            else
            {
                    Node2 current=root;
                    Node2 parent;

                    while(true)
                    {
                            parent=current;
                            if(in.hitKell()>current.getValue())
                            {
                                    current=current.leftChild;
                                    if(current==null)
                                    {
                                            Node2 baru= new
Node2(in,in.hitKell());
                                            parent.leftChild= baru;
                                            return;
                                    }
                            }
                            else
                            {
                                    current=current.rightChild;
                                    if(current==null)
                                    {
                                            Node2 baru= new
Node2(in,in.hitKell());
                                            parent.rightChild= baru;
                                            return;
                                    }
                            }
                    }
            }

    }
    }
```

3. TreeBoard.java

```java
class TreeBoard
{
        private Node root;
        private Node min;
        private int selisihx;
        private int selisihy;
        int masukk=0;
        barang selisih;


        //node board
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public void insert(int pjg_board, int lbr_board, int xAwal, int yAwal, int xAkhir,
int yAkhir)
        {
                Node newNode= new
Node(pjg_board,lbr_board,xAwal,yAwal,xAkhir,yAkhir);

                System.out.println("Ukuran Board = "+newNode.getPBoard()+" x
"+newNode.getLBoard());
                //Jika pohon masih kosong
                if(root==null) root=newNode;
                min=root;
        }

public void inOrder(Node node,barang cek)
        {
                if(node!=null){
                        inOrder(node.leftChild, cek);  //barang ke kiri

                        if(node.getFlagIsi()==0)
                        {
                                int selisihbantux;
                                int selisihbantuy;
                                //jika node pjg board awal < lbr board awal
                                if(node.getPBoard()<node.getLBoard())
```

```java
                        {// maka
                        // selisihbantu x= pjg board awal - lbr barang
                    selisihbantux=node.getPBoard()-cek.getLbrBnd();
                        // selisihbantu y= lbr board awal - pjg barang
                    selisihbantuy=node.getLBoard()-cek.getPjngBnd();
                        }
                        else
                        {
                    selisihbantux=node.getPBoard()-cek.getPjngBnd();
                    selisihbantuy=node.getLBoard()-cek.getLbrBnd();
                        }

                        if(selisihbantux>=0 && selisihbantuy>=0)
                        {

                if(selisihbantux<=selisihx && selisihbantuy<=selisihy)
                {

                    selisihx=selisihbantux;
                    selisihy=selisihbantuy;
                    masukk=1;
System.out.println("Selisih x="+selisihx+" Selisih Y="+selisihy);
        min=node;
System.out.println("Node ("+min.getKorBoardxAwal()+","+min.getKorBoardyAwal()
+") "+min.getKorBoardxAkhir()+","+min.getKorBoardyAkhir()+") ");
                        }
                        }
                    }

//System.out.println("Baca KANAN -nya "+node.getValue());
                    inOrder(node.rightChild, cek);
            }
        }
        // referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public Node getMin(barang ini)
        {
                return min;
        }
```

```java
        public boolean adaTempat(barang ini)
{

        selisihx=root.getPBoard();
        selisihy=root.getLBoard();

        selisih=ini;

        masukk=0;
        inOrder(root,selisih);

        if(masukk==1) return true;
        else return false;}}
```

4. Node.java

```java
class Node
{
        private int flag_isi;
        private int pjg_board;
        private int lbr_board;
        koordinat board;
        private barang keramik;
        Node leftChild;
        Node rightChild;
        // referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public Node(int pjg, int lbr, int xAwal, int yAwal, int xAkhir, int yAkhir)
        {
                this.pjg_board=pjg;
                this.lbr_board=lbr;
                board= new koordinat(xAwal,yAwal,xAkhir,yAkhir);
                this.flag_isi=0;//

        }

//-TUGAS OOP- Bu rosita--------------------------
        public int getKorBoardxAwal()
        {
                return board.x_awal;

        }
//-TUGAS OOP- Bu rosita--------------------------
        public int getKorBoardxAkhir()
        {
                return board.x_akhir;

        }

//-TUGAS OOP- Bu rosita--------------------------
        public int getKorBoardyAwal()
        {
                return board.y_awal;
        }


//-TUGAS OOP- Bu rosita--------------------------
```

```java
        public int getKorBoardyAkhir()
        {
                return board.y_akhir;
        }


//-TUGAS OOP- Bu rosita--------------------------
        public void setBarang(barang in)
        {
                this.keramik=in;
        }

//-TUGAS OOP- Bu rosita--------------------------
        public int getPBoard()
        {
                return pjg_board;
        }

//-TUGAS OOP- Bu rosita--------------------------
        public int getLBoard()
        {
                return lbr_board;
        }

//-TUGAS OOP- Bu rosita--------------------------
        public int getFlagIsi()
        {
                return flag_isi;
        }

//-TUGAS OOP- Bu rosita--------------------------
        public void setFlagIsi()
        {
                this.flag_isi=1;
        }

//-TUGAS OOP- Bu rosita--------------------------
        public barang getBarang()
```

```
        {
            return keramik;
        }
    }
```

5. Node2.java

```java
class Node2
{
        private int flag;
        private int masuk;
        private int sudah;
        private int full;
        barang urut;
        private int value;
        Node2 leftChild;
        Node2 rightChild;

// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public Node2(barang ini, int isi)
        {
                urut=ini;
                this.value=isi;
                this.flag=0;
                this.masuk=0;
                this.sudah=0;
                this.full=0;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getValue()
        {
                return value;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getFlag()
        {
                return flag;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getMasuk()
```

```
                {
                        return masuk;
                }


//-TUGAS OOP- Bu rosita---------------------------
        public void setFull()
                {
                        this.full=1;
                }

//-TUGAS OOP- Bu rosita---------------------------
        public boolean Full()
                {
                        if(full==1) return true;
                        else return false;
                }

//-TUGAS OOP- Bu rosita---------------------------
        public void setFlag()
                {
                        this.flag=1;
                }

//-TUGAS OOP- Bu rosita---------------------------
        public int getSudah()
                {
                        return sudah;
                }

//-TUGAS OOP- Bu rosita---------------------------
        public void setSudah()
                {
                        this.sudah=1;
                }

//-TUGAS OOP- Bu rosita---------------------------
```

```java
        public void setMasuk()
        {
                this.masuk=1;
        }


//-TUGAS OOP- Bu rosita---------------------------
        public barang getBarang()
        {
                return urut;
        }
}
```

6. koordinat.java

```java
class koordinat
{
        int x_awal;
        int y_awal;
        int x_akhir;
        int y_akhir;

//-TUGAS OOP- Bu rosita---------------------------
        public koordinat(int xAwal, int yAwal, int xAkhir, int yAkhir)
        {
                this.x_awal=xAwal;
                this.y_awal=yAwal;
                this.x_akhir=xAkhir;
                this.y_akhir=yAkhir;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getKorBndxAwal()
        {
                return x_awal;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getKorBndxAkhir()
        {
                return x_akhir;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getKorBndyAwal()
        {
                return y_awal;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public int getKorBndyAkhir()
```

```
            {
                    return y_akhir;
            }
    }
```

7. Link.java

```java
//advance progamming
class Link{
        private koordinat itu;
        public Link next;


// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public Link(koordinat these)
        {
                this.itu= these;
                next= null;
        }

// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public koordinat getKordinat3()
        {
                return itu;
        }
}
```

8. ListKordinat.java

```java
class ListKordinat
{       private Link head, tail, curr, temp;
        private int msk=0;

        public ListKordinat()
        {       head=null;
                tail=null;
        }
        public boolean isEmpty()
        {       return (head==null);
        }

        public int getMsk()
        {
                return msk;
        }

        public void setMsk()
        {
                this.msk=1;
        }

// referensi oleh hendarta A.S: mengakses method dan data dari class lain
        public void addLink(koordinat ini)
        {       Link nw=new Link(ini);

                if(isEmpty())
                {       head=nw;
                        tail=nw;
                        curr=nw;
                }
                else
                {       tail.next=nw;
                        tail=nw;
                }
        }
```

```java
public boolean masihada()
{
        if(curr!=tail)
        {
                System.out.println("Ini bukan tail");
                temp=curr;
                curr=curr.next;
                return true;
        }
        else if(curr==tail && getMsk()!=1)
        {
                temp=curr;
                setMsk();
                System.out.println("Ini tail");
                return true;
        }
        else
        {
                System.out.println("falseeee "+msk);
                return false;
        }
}
// referensi oleh hendarta A.S: mengakses method dan data dari class lain
public koordinat getKordinat2()
{
        return temp.getKordinat3();
}
}
```

9. barang.java

```java
class barang
{
        private String nama_barang;
        private int pjg_benda;
        private int lbr_benda;
        private int harga;
        ListKordinat barangku;

// referensi oleh hendarat A.S: mengakses method dan data dari class lain
        public barang(String nama, int pjg, int lbr, int h)
        {
                barangku= new ListKordinat();
                this.nama_barang=nama;
                this.pjg_benda=pjg;
                this.lbr_benda=lbr;
                this.harga=h;
        }

        public void balikPL()
        {
                int temp=this.pjg_benda;
                this.pjg_benda=this.lbr_benda;
                this.lbr_benda=temp;
        }

//-TUGAS OOP- Bu rosita---------------------------
        public String getName()
        {
                return nama_barang;
        }


//-TUGAS OOP- Bu rosita---------------------------
        public int hitKell()
        {
                return ((2*pjg_benda)+(2*lbr_benda));
        }
```

```java
//-TUGAS OOP- Bu rosita--------------------------
    public int getHarga()
    {
            return harga;
    }


//-TUGAS OOP- Bu rosita--------------------------
    public int getPjngBnd()
    {
            return pjg_benda;
    }


//-TUGAS OOP- Bu rosita--------------------------
    public int getLbrBnd()
    {
            return lbr_benda;
    }

// referensi oleh hendarat A.S: mengakses method dan data dari class lain
    public void setKoordinat(int x, int y, int x2, int y2)
    {
            koordinat ku=new koordinat(x,y,x2,y2);
            barangku.addLink(ku);
    }

//-TUGAS OOP- Bu rosita--------------------------
    public koordinat getKordinat()
    {
            return barangku.getKordinat2();
    }


//-TUGAS OOP- Bu rosita--------------------------
    public boolean mshBisa()
    {
            if(barangku.masihada()) return true;
            else return false;}}
```

10. bacaTulisFile.java

```java
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;

public class bacaTulisFile{

        String filename;
        String content;

        public bacaTulisFile(String namaFile)
        {
                this.filename = namaFile;
                this.content = "";
        }

        public bacaTulisFile(String namaFile, String isiFile)
        {
                this.filename = namaFile;
                this.content = isiFile;
        }
//-TUGAS OOP- Bu rosita----------------------------
        public String getFilename()
        {
                return filename;
        }

//-TUGAS OOP- Bu rosita----------------------------
        public String getContent()
        {
                return content;
        }

        public String baca()
```

```java
        {
            try
            {
                String bantubaca;
                BufferedReader read = new BufferedReader(new
FileReader(getFilename()));
                while ((bantubaca = read.readLine())!=null)
                {
                    this.content = getContent()+""+bantubaca+"\n";
                }
            }
            catch(IOException e)
            {
                System.err.println("Error: " + e);
            }
            return content;
        }

        public void nulis(String edittextbarang)
        {
            try
            {
                FileWriter nulis = new FileWriter(getFilename());
                BufferedWriter out = new BufferedWriter(nulis);
                out.write(""+ edittextbarang);
                out.close();
            }
            catch(IOException e)
            {
                System.err.println("Error: " + e);
            }
        }

    }
```