

Nama : Ade Reiki Karuna

NIM : A12.2020.06455

Mata Kuliah : PBO

Tugas Praktik 6 (Inheritance)

Latihan06a.java

```
C:\Program Files (x86)\Xinox Software\JCreatorV3LE\GE2001.exe
Programmer salary is : 40000.0
Bonus of Programmer is : 10000
Press any key to continue...
Programmer()
```

Latihan06b.java

```
C:\Program Files (x86)\Xinox Software\JCreatorV3LE\GE2001.exe
Name : Suryania
Age : 22
Salary : 4000
Press any key to continue...
```

Latihan06c (Calculator011.java)

Source Code :

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

public class Calculator011 extends JFrame implements ActionListener
{
    private JPanel    jpCalculator    = new JPanel();

    private JTextField fLayar        = new JTextField();
    private JLabel    labelmhs      = new JLabel
("NIM:A12.2020.06455 | Nama : Ade Reiki Karuna");

    private JButton    btnTambah    = new JButton ("+"),
    btnKurang          = new JButton ("-"),
    btnKali             = new JButton ("*"),
```

```

        btnBagi      = new JButton ("/"),
        btnC         = new JButton ("C"),
        btn0         = new JButton ("0"),
        btn1         = new JButton ("1"),
        btn2         = new JButton ("2"),
        btn3         = new JButton ("3"),
        btn4         = new JButton ("4"),
        btn5         = new JButton ("5"),
        btn6         = new JButton ("6"),
        btn7         = new JButton ("7"),
        btn8         = new JButton ("8"),
        btn9         = new JButton ("9"),
        btnKoma       = new JButton ("."),
        btnSama       = new JButton ("=");

private String isilayar = "";
private String snilai1, snilai2, tombol;
private int pilih;
private double hasil;
private int hasil_int;
Font font1 = new Font("SansSerif", Font.BOLD, 24);

public Calculator011() {
    setPreferredSize(new Dimension(500, 600));
    setTitle("Kalkulator");
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

    new BorderLayout();
    JDesktopPane jpCalculator = new JDesktopPane();
    add(jpCalculator, BorderLayout.CENTER);

    /* Mengatur Letak objek Text Di Container */
    // (koord x, koord y, panjang, tinggi)
    fLayar.setBounds (50, 90, 385, 50);
    fLayar.setFont(font1);
    labelmhs.setBounds(50, 480, 300, 50);

    /* Mengatur Letak objek Button Di Container */
    btnC.setBounds (350, 160, 85, 50);
    btnKali.setBounds (350, 230, 85, 50);
    btnBagi.setBounds (350, 300, 85, 50);
    btnTambah.setBounds (350, 370, 85, 50);
    btnKurang.setBounds (350, 440, 85, 50);

```

```
btnSama.setBounds (250, 440, 85, 50);
btnKoma.setBounds (150, 440, 85, 50);
//btnSama.setLabel("=");

//btnAdd.setToolTipText ("Tombol Tambah Data");

//baris ke-2
btn7.setBounds (50, 230, 85, 50);
btn8.setBounds (150, 230, 85, 50);
btn9.setBounds (250, 230, 85, 50);

//baris ke-3
btn4.setBounds (50, 300, 85, 50);
btn5.setBounds (150, 300, 85, 50);
btn6.setBounds (250, 300, 85, 50);

//baris ke-3
btn1.setBounds (50, 370, 85, 50);
btn2.setBounds (150, 370, 85, 50);
btn3.setBounds (250, 370, 85, 50);

//baris ke-4
btn0.setBounds (50, 440, 85, 50);

fLayar.setHorizontalAlignment(JTextField.RIGHT);

/* Objek Button di Non Aktifkan dan Di Aktifkan */
btnTambah.setEnabled(true);
btnKurang.setEnabled(true);
btnKali.setEnabled(true);
btnBagi.setEnabled(true);
btnKoma.setEnabled(true);

/* Mengatur objek untuk dapat berinteraksi */
btn0.addActionListener(this);
btn1.addActionListener(this);
btn2.addActionListener(this);
btn3.addActionListener(this);
btn4.addActionListener(this);
btn5.addActionListener(this);
btn6.addActionListener(this);
```

```

        btn7.addActionListener(this);
        btn8.addActionListener(this);
        btn9.addActionListener(this);

        btnC.addActionListener(this);
        btnSama.addActionListener(this);
        btnKoma.addActionListener(this);
        btnTambah.addActionListener(this);
        btnKurang.addActionListener(this);
        btnKali.addActionListener(this);
        btnBagi.addActionListener(this);

        // Meletakkan seluruh kontrol pada objek panel */
        jpCalculator.add (fLayar);
        jpCalculator.add (labelmhs);
        jpCalculator.add (btn0);
        jpCalculator.add (btn1);
        jpCalculator.add (btn2);
        jpCalculator.add (btn3);
        jpCalculator.add (btn4);
        jpCalculator.add (btn5);
        jpCalculator.add (btn6);
        jpCalculator.add (btn7);
        jpCalculator.add (btn8);
        jpCalculator.add (btn9);

        jpCalculator.add (btnKali);
        jpCalculator.add (btnBagi);
        jpCalculator.add (btnTambah);
        jpCalculator.add (btnKurang);
        jpCalculator.add (btnC);
        jpCalculator.add (btnSama);
        jpCalculator.add (btnKoma);

        /* Menambahkan objek panel (jpCalculator) ke container frame */
        getContentPane().add(jpCalculator).setBackground(Color.getHSBColor(10, 50, 200));

        /* Menampilkan frame ke layar monitor */
        pack();
        setVisible(true);
    }

    public static void main(String[] args) {

```

```
        new Calculator011().setVisible(true);
    }

    /* Fungsi jika user melakukan action penekanan tombol Button */
    public void actionPerformed (ActionEvent ae) {
        Object obj = ae.getSource();

        if (obj == btnC)
        {
            tombol = ""; snilai1 = ""; snilai2 = "";
            isiLayar = "";
            fLayar.setText(isiLayar);
        }

        if (obj == btn0)
        {
            isiLayar = isiLayar + "0";
            fLayar.setText(isiLayar);
        }

        if (obj == btn1)
        {
            isiLayar = isiLayar + "1";
            fLayar.setText(isiLayar);
        }

        if (obj == btn2)
        {
            isiLayar = isiLayar + "2";
            fLayar.setText(isiLayar);
        }

        if (obj == btn3)
        {
            isiLayar = isiLayar + "3";
            fLayar.setText(isiLayar);
        }

        if (obj == btn4)
        {
            isiLayar = isiLayar + "4";
            fLayar.setText(isiLayar);
        }
    }
}
```

```
if (obj == btn5)
{
    isiLayar = isiLayar + "5";
    fLayar.setText(isiLayar);
}

if (obj == btn6)
{
    isiLayar = isiLayar + "6";
    fLayar.setText(isiLayar);
}

if (obj == btn7)
{
    isiLayar = isiLayar + "7";
    fLayar.setText(isiLayar);
}

if (obj == btn8)
{
    isiLayar = isiLayar + "8";
    fLayar.setText(isiLayar);
}

if (obj == btn9)
{
    isiLayar = isiLayar + "9";
    fLayar.setText(isiLayar);
}

//mendeklarasikan nilai var pilih ditiap button
if (obj == btnTambah)
{
    tombol    = "tambah";
    snilai1   = fLayar.getText();
    isiLayar  = "";
    fLayar.setText(isiLayar);
    pilih = 1;
}

if (obj == btnKurang)
{
    tombol    = "kurang";
    snilai1   = fLayar.getText();
    isiLayar  = "";
```

```

        fLayar.setText(isiLayar);
        pilih = 2;
    }

    if (obj == btnKali)
    {
        tombol    = "kali";
        snilai1   = fLayar.getText();
        isiLayar  = "";
        fLayar.setText(isiLayar);
        pilih = 3;
    }

    if (obj == btnBagi)
    {
        tombol    = "bagi";
        snilai1   = fLayar.getText();
        isiLayar  = "";
        fLayar.setText(isiLayar);
        pilih = 4;
    }

    if (obj == btnKoma)
    {
        tombol    = "koma";
        isiLayar  = isiLayar + ".";
        fLayar.setText(isiLayar);
    }

    if (obj == btnSama)
    {
        snilai2 = fLayar.getText();

        // saat ditekan tombol =

        // menggunakan switch case dengan memanggil fungsi
method rumus
        switch(pilih){
            case 1:
                methodTambah();
                break;

            case 2:
                methodKurang();

```

```

        break;

        case 3:
            methodKali();
            break;

        case 4:
            methodBagi();
            break;

    }

    if (tombol == "koma")
    {
        String shasil = "" + hasil;
        fLayar.setText(shasil);
    }
    else
    {
        String shasil = "" + hasil_int;
        fLayar.setText(shasil);
    }

}

} //tutup method public void actionPerformed

//fungsi method rumus

void methodTambah()
{
    if (tombol == "koma")
    {
        hasil = Double.parseDouble(snilai1) +
Double.parseDouble(snilai2);
    }
    else
    {
        hasil = Integer.parseInt(snilai1) +
Integer.parseInt(snilai2);
        hasil_int = (int)hasil;
    }
}
}

```



```

        void methodKurang()
        {
            if (tombol == "koma")
            {
                hasil = Double.parseDouble(snilai1) -
Double.parseDouble(snilai2);
            }
            else
            {
                hasil = Integer.parseInt(snilai1) -
Integer.parseInt(snilai2);
                hasil_int = (int)hasil;
            }
        }

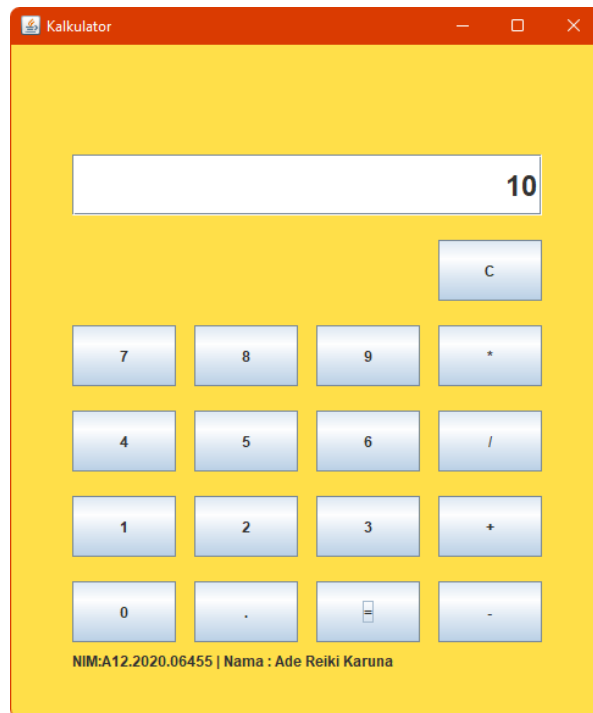
        void methodKali()
        {
            if (tombol == "koma")
            {
                hasil = Double.parseDouble(snilai1) *
Double.parseDouble(snilai2);
            }
            else
            {
                hasil = Integer.parseInt(snilai1) *
Integer.parseInt(snilai2);
                hasil_int = (int)hasil;
            }
        }

        void methodBagi()
        {
            if (tombol == "koma")
            {
                hasil = Double.parseDouble(snilai1) /
Double.parseDouble(snilai2);
            }
            else
            {
                hasil = Integer.parseInt(snilai1) /
Integer.parseInt(snilai2);
                hasil_int = (int)hasil;
            }
        }
    }

```

```
//fungsi untuk mengkosongkan objek layar tampilan  
void kosong()  
{  
    fLayar.setText ("");  
    fLayar.requestFocus ();  
}  
}
```

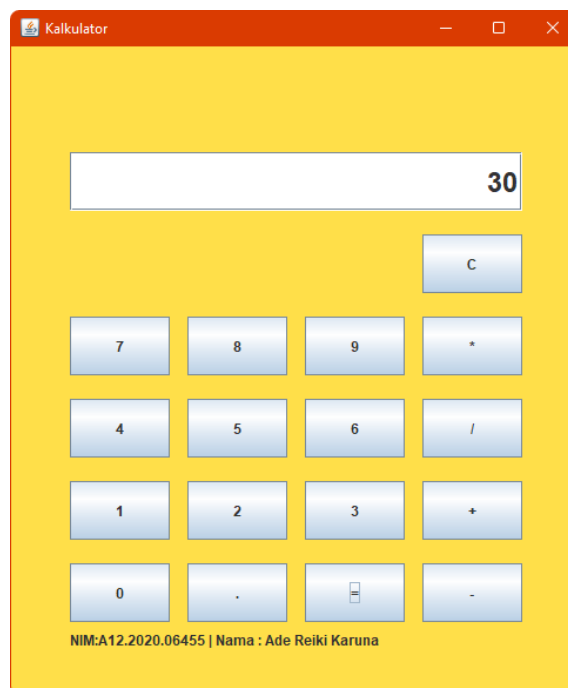
Output Tambah (5+5) :



Output Kurang (10-7) :



Output Kali (3x10) :



Output Bagi (30/5) :

