Tugas pertemuan ke-3

Mata Kuliah Pemrograman Berorientasi Objek

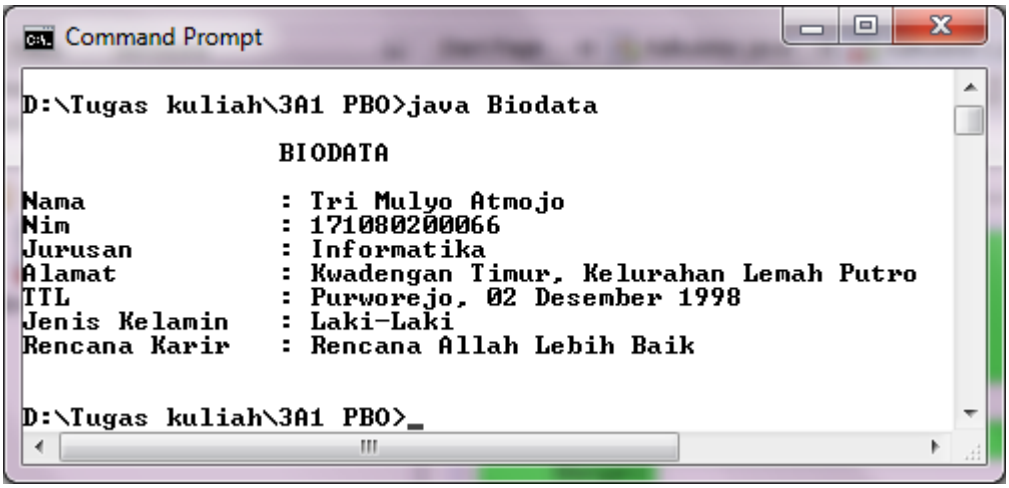
oleh:

Tri Mulyo Atmojo (171080200066)
Jurusan : Informatika 3A1

U N I V E R S I T A S M U H A M M A D I Y A H S I D O A R J O
2018

1. Buatlah program java dengan ketentuan:
   -Berisi biodata perorangan dalam kelompok : Nama, nim, jurusan, alamat, TTL, rencana karir.

   Jawab :



Source code :

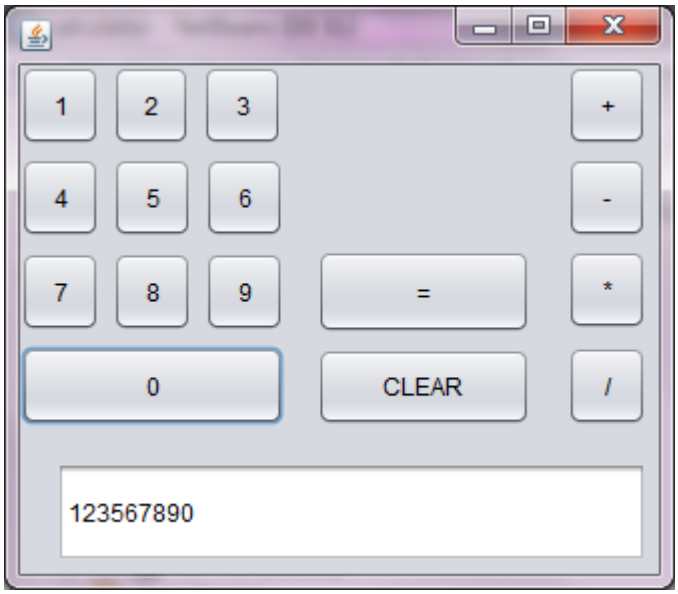
```
public class Biodata {
//memberitahu ke Biodata.java jika didalam sini ada sebuah program
        public static void main (String argv []) {
        // pintu yang pertamakali akan dieksekusi

                System.out.println ("          BIODATA     ");
                //memerintahkan system untuk mengeluarkan output BIODATA
                System.out.println();
                System.out.println ("Nama              : Tri Mulyo Atmojo") ;
                //memerintahkan system untuk mengenluarkan output Nama : Tri
                Mulyo Atmojo
                System.out.println ("Nim               : 171080200066");
                //memerintahkan system untuk mengeluarkan output Nim :
                171080200066
                System.out.println ("Jurusan  : Informatika") ;
                //memerintahkan system untuk mengeluarkan output Jurusan :
                Informatika
                System.out.println ("Alamat            : Kwadengan Timur,
                Kelurahan Lemah Putro") ;
                //memerintahkan system untuk mengeluarkan output Alamat:
                Kwadengan Timur, Kelurahan Lemah Putro
                System.out.println ("TTL               : Purworejo, 02 Desember
                1998") ;
                //memerintahkan system untuk mengeluarkan output TTL    :
                Purworejo, 02 Desember 1998
```

```
                System.out.println ("Rencana Karir   : Rencana Allah Lebih Baik")
                ;
                //memerintahkan system untuk mengeluarkan output Rencana
                Karir   : Rencana Allah Lebih Baik
                System.out.println();

        }
}
```

2. Buatlah Aplikasi kalkulator yang menggunakan bahasa Java, dengan ketentuan tampilan tidak boleh sama antara satu dengan yang lain.
Jawab :



//Calculator.java

```
package calculator; //mengelongpokkan kelas calculator

public class Calculator { //memberitahu ke Calculator.java jika didalam sini ada
sebuah program

    public static void main(String[] args) { //yang pertama kali dieksekusi
```

```
    }

}
```

//calculator1.java

```
package calculator; //mengelompokan kelas kalkulator

public class calculator1 extends javax.swing.JFrame { //pintu utama program
    String angka;
    int bil1, bil2, pilih, jumlah; //deklarasi variabel

    public calculator1() { //pintu  program
        initComponents();
        angka="";
    }
    void angka1(){
        angka +="1";
        jTextTampil.setText(angka);
    }
    void angka2(){
        angka +="2";
        jTextTampil.setText(angka);
    }
    void angka3(){
        angka +="3";
        jTextTampil.setText(angka);
    }
    void angka4(){
        angka +="4";
        jTextTampil.setText(angka);
    }
    void angka5(){
        angka +="5";
        jTextTampil.setText(angka);
    }
    void angka6(){
        angka +="6";
        jTextTampil.setText(angka);
    }
    void angka7(){
        angka +="7";
        jTextTampil.setText(angka);
    }
```

```
void angka8(){
   angka +="8";
   jTextTampil.setText(angka);
}
void angka9(){
   angka +="9";
   jTextTampil.setText(angka);
}
void angka0(){
   angka +="0";
   jTextTampil.setText(angka);
}


void hasil () {
   switch (pilih) {
      case 1 : //pernyataan 1
         bil2 = Integer.parseInt (angka);
         jumlah = bil1+bil2;
         angka = Integer.toString(jumlah)
         jTextTampil.setText(angka);
         break;
      case 2 : //pernyataan 2
         bil2 = Integer.parseInt (angka);
         jumlah = bil1-bil2;
         angka = Integer.toString(jumlah)
         jTextTampil.setText(angka);
         break;
      case 3 :pernyataan 3
         bil2 = Integer.parseInt (angka);
         jumlah = bil1*bil2;
         angka = Integer.toString(jumlah)
         jTextTampil.setText(angka);
         break;
      case 4 : pernyataan 4
         bil2 = Integer.parseInt (angka);
         jumlah = bil1/bil2;
         angka = Integer.toString(jumlah)
         jTextTampil.setText(angka);
         break;
   }
}

void tambah (){
   bil1 = Integer.parseInt(angka);
   jTextTampil.setText ("+");
   angka="";
   pilih=1;
```

```
    }
    void kurang (){
        bil1 = Integer.parseInt(angka);
        jTextTampil.setText ("-");
        angka="";
        pilih=2;
    }
    void kali (){
        bil1 = Integer.parseInt(angka);
        jTextTampil.setText ("*");
        angka="";
        pilih=3;
    }
    void bagi (){
        bil1 = Integer.parseInt(angka);
        jTextTampil.setText ("/");
        angka="";
        pilih=4;
    }


    private void initComponents() {
      // pembuatan tombol
        jTextTampil = new javax.swing.JTextField();
        btn1 = new javax.swing.JButton();
        btn3 = new javax.swing.JButton();
        btn2 = new javax.swing.JButton();
        btn4 = new javax.swing.JButton();
        btn6 = new javax.swing.JButton();
        btn5 = new javax.swing.JButton();
        btn7 = new javax.swing.JButton();
        btn9 = new javax.swing.JButton();
        btn8 = new javax.swing.JButton();
        btn0 = new javax.swing.JButton();
        btntambah = new javax.swing.JButton();
        btnkurang = new javax.swing.JButton();
        btnkali = new javax.swing.JButton();
        btnbagi = new javax.swing.JButton();
        btnc = new javax.swing.JButton();
        btnsd = new javax.swing.JButton();


setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        // perincian tombol
        btn1.setText("1");
        btn1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btn1ActionPerformed(evt);
```

```
    }
});

btn3.setText("3");
btn3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn3ActionPerformed(evt);
    }
});

btn2.setText("2");
btn2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn2ActionPerformed(evt);
    }
});

btn4.setText("4");
btn4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn4ActionPerformed(evt);
    }
});

btn6.setText("6");
btn6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn6ActionPerformed(evt);
    }
});

btn5.setText("5");
btn5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn5ActionPerformed(evt);
    }
});

btn7.setText("7");
btn7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn7ActionPerformed(evt);
    }
});

btn9.setText("9");
btn9.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        btn9ActionPerformed(evt);
    }
});

btn8.setText("8");
btn8.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn8ActionPerformed(evt);
    }
});

btn0.setText("0");
btn0.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn0ActionPerformed(evt);
    }
});

btntambah.setText("+");
btntambah.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btntambahActionPerformed(evt);
    }
});

btnkurang.setText("-");
btnkurang.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnkurangActionPerformed(evt);
    }
});

btnkali.setText("*");
btnkali.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnkaliActionPerformed(evt);
    }
});

btnbagi.setText("/");
btnbagi.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnbagiActionPerformed(evt);
    }
});

btnc.setText("CLEAR");
btnc.addActionListener(new java.awt.event.ActionListener() {
```

```
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btncActionPerformed(evt);
            }
        });

        btnsd.setText("=");
        btnsd.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnsdActionPerformed(evt);
            }
        });

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
                    .addComponent(btnc, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addComponent(jTextTampil)
                    .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING, false)
                            .addGroup(layout.createSequentialGroup()
                                .addComponent(btn4,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(btn5,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(btn6,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addGroup(layout.createSequentialGroup()
                                .addComponent(btn7,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(btn8,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(btn9,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addComponent(btn0,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 64,
Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
                    .addComponent(btnbagi,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btnkali,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btnkurang,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGroup(layout.createSequentialGroup()
                    .addComponent(btn1,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(btn2,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(btn3,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addComponent(btntambah,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
                .addComponent(btnsd,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addContainerGap())
        );
        layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(7, 7, 7)
                .addComponent(jTextTampil,
javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BAS
ELINE)
                .addComponent(btn1,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btn2,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btn3,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btntambah,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
                .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BAS
ELINE)
                    .addComponent(btn4,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btn5,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
                    .addComponent(btn6,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BAS
ELINE)
                    .addComponent(btn7,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btn8,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(btn9,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(btn0,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
              .addGroup(layout.createSequentialGroup()
                .addComponent(btnkurang,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(btnkali,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(btnbagi,
javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(btnsd)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(btnc)
            .addGap(7, 7, 7))
        );

        pack();
    }
```

```
private void btn3ActionPerformed(java.awt.event.ActionEvent evt) {
    angka3 ();
}

private void btn6ActionPerformed(java.awt.event.ActionEvent evt) {
    angka6 ();
}

private void btnkurangActionPerformed(java.awt.event.ActionEvent evt) {
    kurang ();
}

private void btnkaliActionPerformed(java.awt.event.ActionEvent evt) {
    kali ();
}

private void btncActionPerformed(java.awt.event.ActionEvent evt) {
    jTextTampil.setText("");
    bil1=(int) 0.0;
    bil2=(int) 0.0;
    jumlah=(int) 0.0;
    angka=();
}

private void btnsdActionPerformed(java.awt.event.ActionEvent evt) {
        hasil ();
}

private void btn1ActionPerformed(java.awt.event.ActionEvent evt) {
    angka1 ();
}

private void btn2ActionPerformed(java.awt.event.ActionEvent evt) {
    angka2 ();
}

private void btn4ActionPerformed(java.awt.event.ActionEvent evt) {
    angka4 ();
}

private void btn5ActionPerformed(java.awt.event.ActionEvent evt) {
    angka5 ();
}

private void btn7ActionPerformed(java.awt.event.ActionEvent evt) {
    angka7 ();
}
```

```
    private void btn8ActionPerformed(java.awt.event.ActionEvent evt) {
        angka8 ();
    }

    private void btn9ActionPerformed(java.awt.event.ActionEvent evt) {
        angka9 ();
    }

    private void btn0ActionPerformed(java.awt.event.ActionEvent evt) {
        angka0 ();
    }

    private void btntambahActionPerformed(java.awt.event.ActionEvent evt) {
        tambah ();
    }

    private void btnbagiActionPerformed(java.awt.event.ActionEvent evt) {
        bagi ();
    }

    public static void main(String args[]) {

        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(calculator1.class.getName()).log(java.util.logg
ing.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(calculator1.class.getName()).log(java.util.logg
ing.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(calculator1.class.getName()).log(java.util.logg
ing.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(calculator1.class.getName()).log(java.util.logg
ing.Level.SEVERE, null, ex);
        }
```

```
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new calculator1().setVisible(true);
            }
        });
    }

    // Deklarasi variabel
    private javax.swing.JButton btn0;
    private javax.swing.JButton btn1;
    private javax.swing.JButton btn2;
    private javax.swing.JButton btn3;
    private javax.swing.JButton btn4;
    private javax.swing.JButton btn5;
    private javax.swing.JButton btn6;
    private javax.swing.JButton btn7;
    private javax.swing.JButton btn8;
    private javax.swing.JButton btn9;
    private javax.swing.JButton btnbagi;
    private javax.swing.JButton btnc;
    private javax.swing.JButton btnkali;
    private javax.swing.JButton btnkurang;
    private javax.swing.JButton btnsd;
    private javax.swing.JButton btntambah;
    private javax.swing.JTextField jTextTampil;
    // Akhir dari deklarasi variabel
}
```