Laporan Praktikum Modul 4

Bahasa Pemograman 1

Dosen pengampu : Dede Husen, M.Kom.

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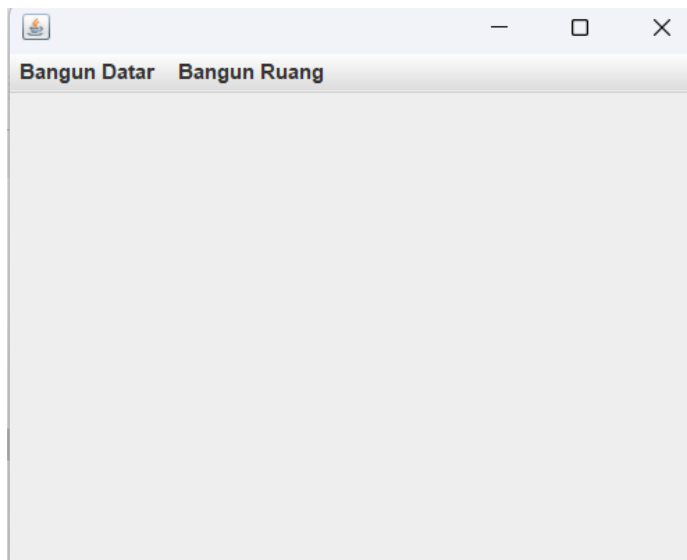
Kelas   : TINFC – 2023 – 04

Teknik Informatika
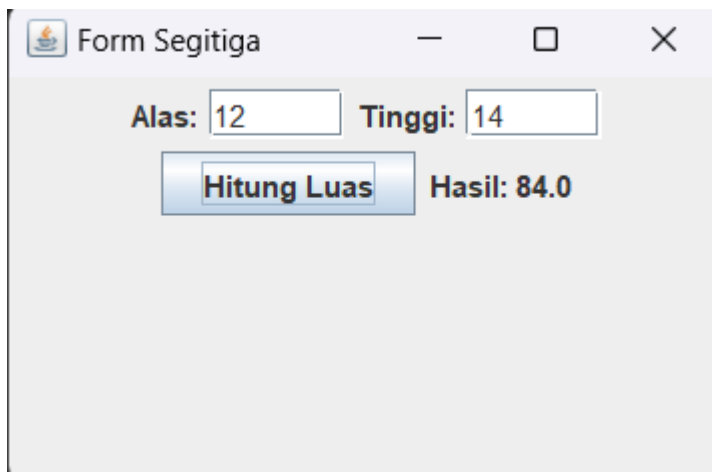
Fakultas Ilmu Komputer

Universitas Kuningan

Form utama
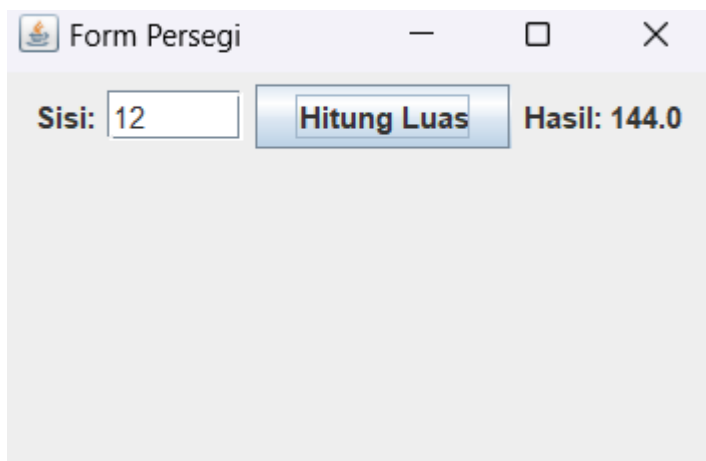
Form Bangun Datar

Segitiga
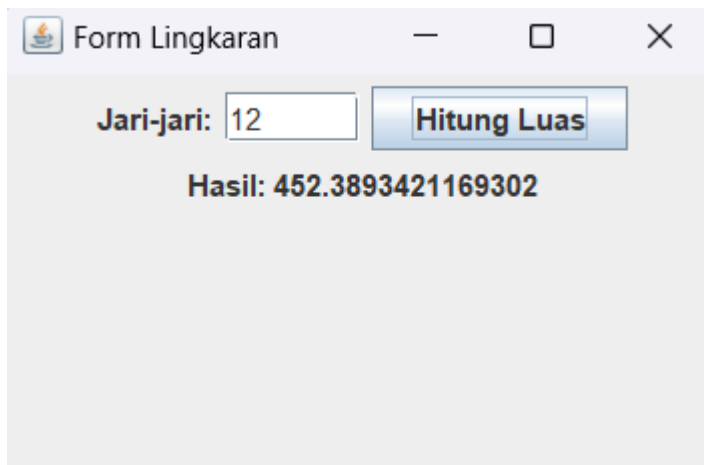
Persegi
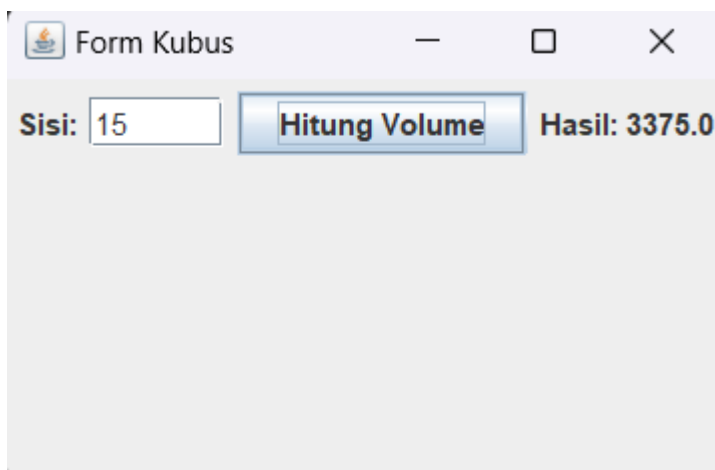
Lingkaran

Form Lingkaran   —   □   ✕

Jari-jari: 12   **Hitung Luas**

Hasil: 452.3893421169302

Bangun Ruang

Kubus
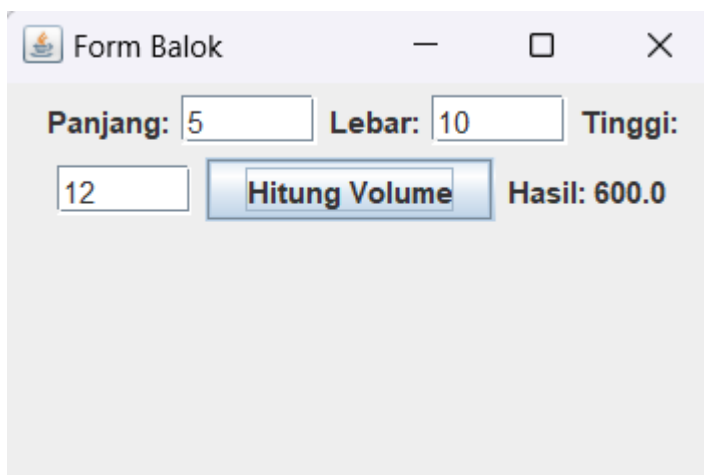
Form Kubus   —   □   ✕

Sisi: 15   **Hitung Volume**   Hasil: 3375.0

Balok

Form Balok   —   □   ✕

Panjang: 5   Lebar: 10   Tinggi:

12   **Hitung Volume**   Hasil: 600.0

Lingkaran
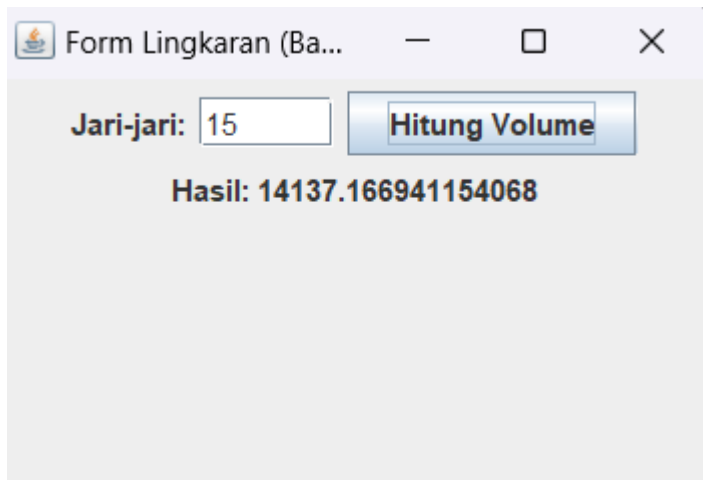
```
/*

 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this
license

 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template

 */

package tugas_hybrid;


import javax.swing.JButton;

import javax.swing.JFrame;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;


/**

 *

 * @author bayu

 */

public class menu extends javax.swing.JFrame {


    /**

     * Creates new form menu
```

```java
 */
public menu() {

    initComponents();

}


/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    jMenuBar1 = new javax.swing.JMenuBar();

    jMenu1 = new javax.swing.JMenu();

    jMenuItem1 = new javax.swing.JMenuItem();

    jMenuItem2 = new javax.swing.JMenuItem();

    jMenuItem3 = new javax.swing.JMenuItem();

    jMenu2 = new javax.swing.JMenu();

    jMenuItem4 = new javax.swing.JMenuItem();

    jMenuItem5 = new javax.swing.JMenuItem();

    jMenuItem6 = new javax.swing.JMenuItem();


    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);


    jMenu1.setText("Bangun Datar");


    jMenuItem1.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_S,
java.awt.event.InputEvent.ALT_DOWN_MASK));

    jMenuItem1.setText("Segitiga");
```

```java
jMenuItem1.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jMenuItem1ActionPerformed(evt);

    }

});

jMenu1.add(jMenuItem1);


jMenuItem2.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_P,
java.awt.event.InputEvent.ALT_DOWN_MASK));

jMenuItem2.setText("Persegi");

jMenuItem2.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jMenuItem2ActionPerformed(evt);

    }

});

jMenu1.add(jMenuItem2);


jMenuItem3.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_L,
java.awt.event.InputEvent.ALT_DOWN_MASK));

jMenuItem3.setText("Lingkaran");

jMenuItem3.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jMenuItem3ActionPerformed(evt);

    }

});

jMenu1.add(jMenuItem3);


jMenuBar1.add(jMenu1);


jMenu2.setText("Bangun Ruang");
```

```java
jMenuItem4.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_K,
java.awt.event.InputEvent.ALT_DOWN_MASK));

jMenuItem4.setText("Kubus");

jMenuItem4.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jMenuItem4ActionPerformed(evt);

    }

});

jMenu2.add(jMenuItem4);


jMenuItem5.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_B,
java.awt.event.InputEvent.ALT_DOWN_MASK));

jMenuItem5.setText("Balok");

jMenuItem5.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jMenuItem5ActionPerformed(evt);

    }

});

jMenu2.add(jMenuItem5);


jMenuItem6.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_T,
java.awt.event.InputEvent.ALT_DOWN_MASK));

jMenuItem6.setText("Lingkaran");

jMenuItem6.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

        jMenuItem6ActionPerformed(evt);

    }

});

jMenu2.add(jMenuItem6);


jMenuBar1.add(jMenu2);
```

```java
    setJMenuBar(jMenuBar1);

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 400, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 277, Short.MAX_VALUE)
    );

    pack();
}// </editor-fold>

private void jMenuItem1ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormSegitiga().setVisible(true);
}

private void jMenuItem2ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormPersegi().setVisible(true);
}

private void jMenuItem3ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormLingkaran().setVisible(true);
}

private void jMenuItem4ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormKubus().setVisible(true);
}
```

```java
private void jMenuItem5ActionPerformed(java.awt.event.ActionEvent evt) {

    new FormBalok().setVisible(true);

}


private void jMenuItem6ActionPerformed(java.awt.event.ActionEvent evt) {

    new FormLingkaranRuang().setVisible(true);

}


/**
 * @param args the command line arguments
 */
public static void main(String args[]) {

    java.awt.EventQueue.invokeLater(new Runnable() {

        @Override

        public void run() {

            new menu().setVisible(true);

        }

    });

}


// Variables declaration - do not modify

private javax.swing.JMenu jMenu1;

private javax.swing.JMenu jMenu2;

private javax.swing.JMenuBar jMenuBar1;

private javax.swing.JMenuItem jMenuItem1;

private javax.swing.JMenuItem jMenuItem2;

private javax.swing.JMenuItem jMenuItem3;

private javax.swing.JMenuItem jMenuItem4;

private javax.swing.JMenuItem jMenuItem5;

private javax.swing.JMenuItem jMenuItem6;
```

// End of variables declaration

```java
public class FormSegitiga extends JFrame {
    public FormSegitiga() {
        setTitle("Form Segitiga");
        setSize(300, 200);
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        setLocationRelativeTo(null);

        JLabel labelBase = new JLabel("Alas:");
        JLabel labelHeight = new JLabel("Tinggi:");
        JTextField textBase = new JTextField(5);
        JTextField textHeight = new JTextField(5);
        JButton buttonCalculate = new JButton("Hitung Luas");
        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener((ActionEvent e) -> {
            try {
                double base1 = Double.parseDouble(textBase.getText());
                double height1 = Double.parseDouble(textHeight.getText());
                double area = 0.5 * base1 * height1;
                labelResult.setText("Hasil: " + area);
            }catch (NumberFormatException ex) {
                JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");
            }
        });

        setLayout(new java.awt.FlowLayout());
        add(labelBase);
        add(textBase);
        add(labelHeight);
```

```java
        add(textHeight);

        add(buttonCalculate);

        add(labelResult);

    }

}


public class FormPersegi extends JFrame {

    public FormPersegi() {

        setTitle("Form Persegi");

        setSize(300, 200);

        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);

        setLocationRelativeTo(null);


        JLabel labelSide = new JLabel("Sisi:");

        JTextField textSide = new JTextField(5);

        JButton buttonCalculate = new JButton("Hitung Luas");

        JLabel labelResult = new JLabel("Hasil:");


        buttonCalculate.addActionListener(new ActionListener() {

            @Override

            public void actionPerformed (ActionEvent e) {

                try {

                    double side = Double.parseDouble(textSide.getText());

                    double area = side * side;

                    labelResult.setText("Hasil: " + area);

                } catch (NumberFormatException ex) {

                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

                }

            }

        });
```

```java
        setLayout(new java.awt.FlowLayout());

        add(labelSide);

        add(textSide);

        add(buttonCalculate);

        add(labelResult);

    }
}


public class FormLingkaran extends JFrame {

    public FormLingkaran() {

        setTitle("Form Lingkaran");

        setSize(300, 200);

        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);

        setLocationRelativeTo(null);


        JLabel labelRadius = new JLabel("Jari-jari:");

        JTextField textRadius = new JTextField(5);

        JButton buttonCalculate = new JButton("Hitung Luas");

        JLabel labelResult = new JLabel("Hasil:");


        buttonCalculate.addActionListener(new ActionListener() {

            @Override

            public void actionPerformed(ActionEvent e) {

                try {

                    double radius = Double.parseDouble(textRadius.getText());

                    double area = Math.PI * radius * radius;

                    labelResult.setText("Hasil: " + area);

                } catch (NumberFormatException ex) {

                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

                }

            }
```

```java
        });

        setLayout(new java.awt.FlowLayout());
        add(labelRadius);
        add(textRadius);
        add(buttonCalculate);
        add(labelResult);
    }
}

public class FormKubus extends JFrame {
    public FormKubus() {
        setTitle("Form Kubus");
        setSize(300, 200);
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        setLocationRelativeTo(null);

        JLabel labelSide = new JLabel("Sisi:");
        JTextField textSide = new JTextField(5);
        JButton buttonCalculate = new JButton("Hitung Volume");
        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                try {
                    double side = Double.parseDouble(textSide.getText());
                    double volume = Math.pow(side, 3);
                    labelResult.setText("Hasil: " + volume);
                } catch (NumberFormatException ex) {
                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");
```

```java
                }
            }
        });

        setLayout(new java.awt.FlowLayout());
        add(labelSide);
        add(textSide);
        add(buttonCalculate);
        add(labelResult);
    }
}


public class FormBalok extends JFrame {
    public FormBalok() {
        setTitle("Form Balok");
        setSize(300, 200);
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        setLocationRelativeTo(null);

        JLabel labelLength = new JLabel("Panjang:");
        JLabel labelWidth = new JLabel("Lebar:");
        JLabel labelHeight = new JLabel("Tinggi:");
        JTextField textLength = new JTextField(5);
        JTextField textWidth = new JTextField(5);
        JTextField textHeight = new JTextField(5);
        JButton buttonCalculate = new JButton("Hitung Volume");
        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
```

```java
            try {

                double length = Double.parseDouble(textLength.getText());

                double width = Double.parseDouble(textWidth.getText());

                double height = Double.parseDouble(textHeight.getText());

                double volume = length * width * height;

                labelResult.setText("Hasil: " + volume);

            } catch (NumberFormatException ex) {

                JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

            }

        }

    });


    setLayout(new java.awt.FlowLayout());

    add(labelLength);

    add(textLength);

    add(labelWidth);

    add(textWidth);

    add(labelHeight);

    add(textHeight);

    add(buttonCalculate);

    add(labelResult);

    }

}


public class FormLingkaranRuang extends JFrame {

    public FormLingkaranRuang() {

        setTitle("Form Lingkaran (Bangun Ruang)");

        setSize(300, 200);

        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);

        setLocationRelativeTo(null);
```

```java
        JLabel labelRadius = new JLabel("Jari-jari:");

        JTextField textRadius = new JTextField(5);

        JButton buttonCalculate = new JButton("Hitung Volume");

        JLabel labelResult = new JLabel("Hasil:");


        buttonCalculate.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                try {
                    double radius = Double.parseDouble(textRadius.getText());
                    double volume = (4.0 / 3.0) * Math.PI * Math.pow(radius, 3);
                    labelResult.setText("Hasil: " + volume);
                } catch (NumberFormatException ex) {
                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");
                }
            }
        });


        setLayout(new java.awt.FlowLayout());

        add(labelRadius);

        add(textRadius);

        add(buttonCalculate);

        add(labelResult);
    }
  }
}
```