Laporan Praktikum

Praktikum Bahasa Pemrograman

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Kelas : TINFC – 2023 – 04

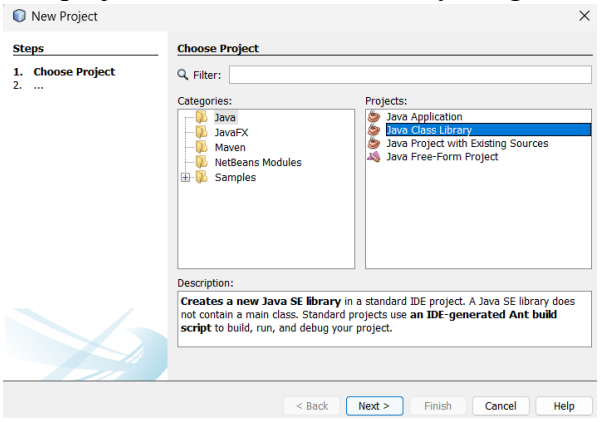
Teknik Informatika

Fakultas Ilmu Komputer

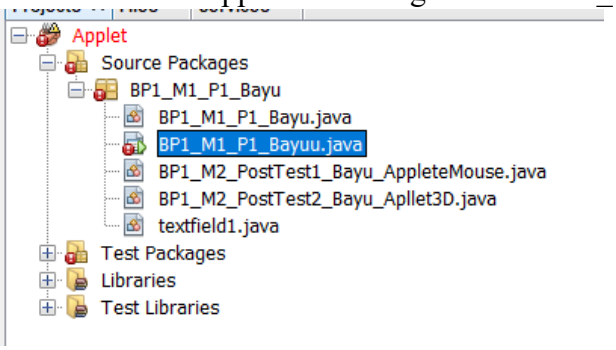
Universitas Kuningan

PRAKTIKUM

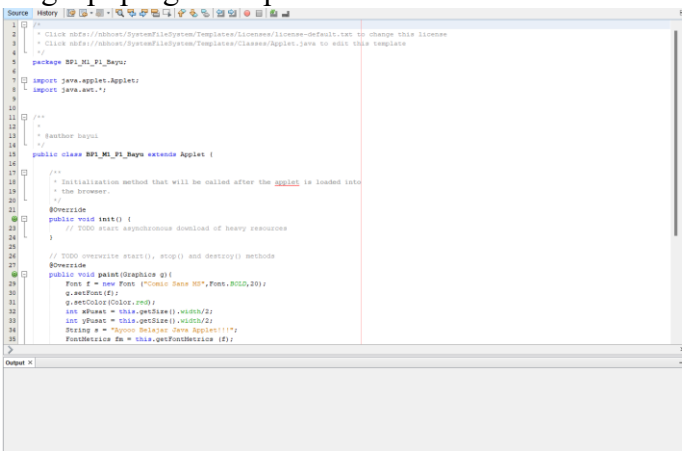
1. Pemrograman -1
   a) Buat projek baru Java Class Library dengan nama Apllet



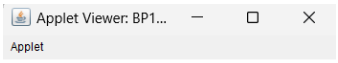
   b) Buat Java Class Applet Baru dengan nama BP1_M2_P1_NamaAnda



   c) Lengkapi program seperti berikut :



   d) Run, lihat dan analisis hasilnya => Jika ada kesalahan, silahkan diperbaiki



Ayooo Belajar Java Applet

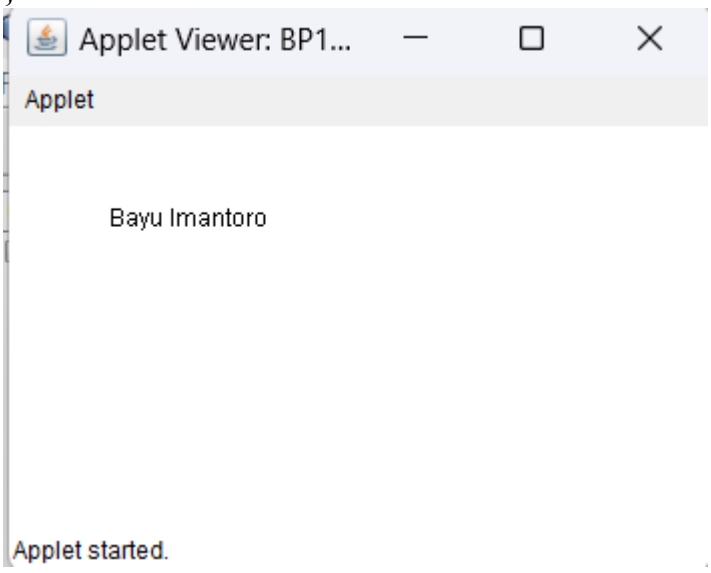
Applet started.

Analisis
Program Applet ini berfungsi untuk menghasilakn kata Ayoo Belajar Java Script dengan warna merah

PRETEST

1. Tuliskan bentuk umum struktur program applet java

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package BP1_M1_P1_Bayu;

import java.applet.Applet;
import java.awt.Graphics;

public class text extends Applet {

    public void paint(Graphics g) {
        g.drawString("Bayu Imantoro", 50, 50);
    }
}
```



POSTEST

1. Buat file applet baru dengan nama BP1_M2_Postest1_Nama_AppletMouse

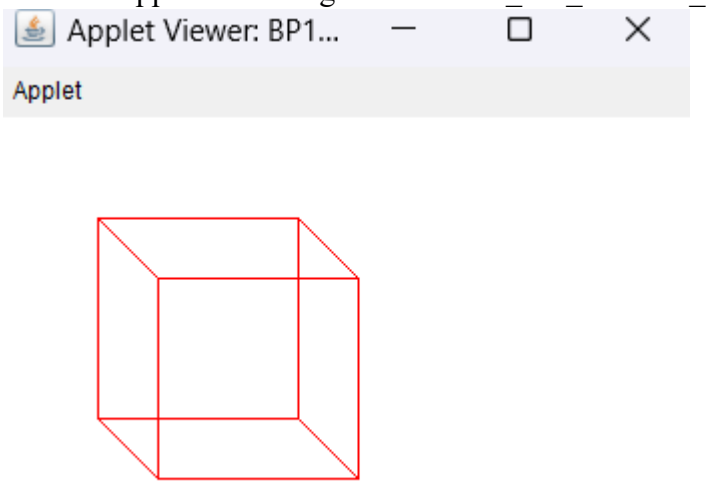
Mouse position: (104, 75)

Applet started.

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Applet.java to edit this template
 */
package BP1_M1_P1_Bayu;

import java.applet.Applet;
import java.awt.Graphics;
import java.awt.event.MouseEvent;
import java.awt.event.MouseMotionListener;

public class MousePositionApplet extends Applet implements MouseMotionListener
{
    private int x = 0;
    private int y = 0;

    @Override
    public void init() {
        addMouseMotionListener(this);
    }

    @Override
    public void paint(Graphics g) {
        g.drawString("Mouse position: (" + x + ", " + y + ")", x, y);
    }

    @Override
    public void mouseMoved(MouseEvent e) {
        x = e.getX();
        y = e.getY();
        repaint();
    }

    @Override
```

```
    public void mouseDragged(MouseEvent e) {
    }
}
```

2. Buat file applet baru dengan nama BP1_M2_Postest2_Nama_Applet3D




```
/*
 * To change this license header, choose License Headers in Project Properties.
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 * and open the template in the editor.
 */
package BP1_M1_P1_Bayu.tugas;

/**
 *
 * @author bayui
 */
import java.applet.Applet;
import java.awt.Color;
import java.awt.Graphics;

public class BP1_M2_PostTest2_Bayu_Apllet3D extends Applet {
    @Override
    public void paint(Graphics g) {
        // mengatur warna untuk garis kubus
        g.setColor(Color.RED);

        int[][] points = {
            {50, 50},   // Titik 0
            {150, 50},  // Titik 1
            {150, 150}, // Titik 2
            {50, 150},  // Titik 3
```

```
            {80, 80},   // Titik 4 (Titik belakang)
            {180, 80},  // Titik 5 (Titik belakang)
            {180, 180}, // Titik 6 (Titik belakang)
            {80, 180}   // Titik 7 (Titik belakang)
        };

        drawCube(g, points);
    }

    private void drawCube(Graphics g, int[][] points) {
        // gambar sisi depan
        g.drawLine(points[0][0], points[0][1], points[1][0], points[1][1]); // Garis 0-1
        g.drawLine(points[1][0], points[1][1], points[2][0], points[2][1]); // Garis 1-2
        g.drawLine(points[2][0], points[2][1], points[3][0], points[3][1]); // Garis 2-3
        g.drawLine(points[3][0], points[3][1], points[0][0], points[0][1]); // Garis 3-0

        // gambar sisi belakang
        g.drawLine(points[4][0], points[4][1], points[5][0], points[5][1]); // Garis 4-5
        g.drawLine(points[5][0], points[5][1], points[6][0], points[6][1]); // Garis 5-6
        g.drawLine(points[6][0], points[6][1], points[7][0], points[7][1]); // Garis 6-7
        g.drawLine(points[7][0], points[7][1], points[4][0], points[4][1]); // Garis 7-4

        // menghubungkan sisi depan dan belakang
        g.drawLine(points[0][0], points[0][1], points[4][0], points[4][1]); // Garis 0-4
        g.drawLine(points[1][0], points[1][1], points[5][0], points[5][1]); // Garis 1-5
        g.drawLine(points[2][0], points[2][1], points[6][0], points[6][1]); // Garis 2-6
        g.drawLine(points[3][0], points[3][1], points[7][0], points[7][1]); // Garis 3-7
    }
}
```

TUGAS

1.
```
/*
 * To change this license header, choose License Headers in Project Properties.
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 * and open the template in the editor.
 */
package BP1_M1_P1_Bayu.tugas;

/**
 *
 * @author bayui
 */
import java.applet.Applet;
import java.awt.Button;
```
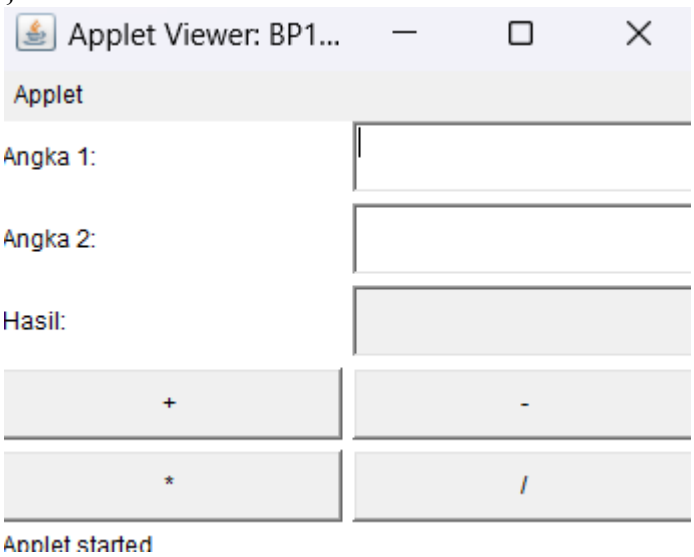
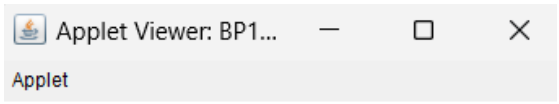

```
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.TextField;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class BP1_M2_Tugas1_Bayu_AppletePerhitungan extends Applet implements
ActionListener {
    private TextField num1Field, num2Field, resultField;
    private Button addButton, subtractButton, multiplyButton, divideButton;

    @Override
    public void init() {
        setLayout(new GridLayout(5, 2, 5, 5));
        num1Field = new TextField(10);
        num2Field = new TextField(10);
        resultField = new TextField(15);
        resultField.setEditable(false);

        addButton = new Button("+");
        subtractButton = new Button("-");
        multiplyButton = new Button("*");
        divideButton = new Button("/");

        add(new Label("Angka 1:"));
        add(num1Field);
        add(new Label("Angka 2:"));
        add(num2Field);
        add(new Label("Hasil:"));
        add(resultField);

        add(addButton);
        add(subtractButton);
        add(multiplyButton);
        add(divideButton);

        addButton.addActionListener(this);
        subtractButton.addActionListener(this);
        multiplyButton.addActionListener(this);
        divideButton.addActionListener(this);
    }

    @Override
    public void actionPerformed(ActionEvent e) {
        try {
            double num1 = Double.parseDouble(num1Field.getText());
```

```
            double num2 = Double.parseDouble(num2Field.getText());
            double result = 0;

            if (e.getSource() == addButton) {
                result = num1 + num2;
            } else if (e.getSource() == subtractButton) {
                result = num1 - num2;
            } else if (e.getSource() == multiplyButton) {
                result = num1 * num2;
            } else if (e.getSource() == divideButton) {
                if (num2 != 0) {
                    result = num1 / num2;
                } else {
                    resultField.setText("Error: Division by zero");
                    return;
                }
            }
            resultField.setText(String.valueOf(result));
        } catch (NumberFormatException ex) {
            resultField.setText("Error: Invalid input");
        }
    }
}
```



2.
```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Applet.java to edit this template
 */
package BP1_M1_P1_Bayu;
```

```
import java.applet.Applet;
import java.awt.Color;
import java.awt.Graphics;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.Timer;

public class BP1_M2_Tugas2_Bayu_AppleteAnimasi extends Applet implements
ActionListener {
    private int ballX = 0;
    private int ballY = 100;
    private int ballSize = 30;
    private int direction = 1;
    private int speed = 5;
    private Timer timer;

    @Override
    public void init() {
        timer = new Timer(20, this);
        timer.start();
    }

    @Override
    public void paint(Graphics g) {
        g.clearRect(0, 0, getWidth(), getHeight());
        g.setColor(Color.GREEN);
        g.fillOval(ballX, ballY, ballSize, ballSize);
    }

    @Override
    public void actionPerformed(ActionEvent e) {
        ballX += speed * direction;
        if (ballX >= getWidth() - ballSize || ballX <= 0) {
            direction *= -1;
        }
        repaint();
    }
}
```



Applet started.