

```

/*
 * GUI mit Java AWT (ab Java 1.1)
 * [Sourcecode aus Tutorial "Creating a User Interface (AWT Only) Archive"
 * von http://java.sun.com/docs/books/tutorial/information/download.html#OLDui]
 */

import java.awt.*;
import java.awt.event.*;

public class GUIWindow extends Frame
    implements ActionListener {
    boolean inAnApplet = true;
    final String FILEDIALOGMENUITEM = "File dialog...";

    public GUIWindow() {
        Panel bottomPanel = new Panel();
        Panel centerPanel = new Panel();
        setLayout(new BorderLayout());

        //Menuleiste erstellen
        MenuBar mb = new MenuBar();
        Menu m = new Menu("Menu");
        m.add(new MenuItem("Menu item 1"));
        m.add(new CheckboxMenuItem("Menu item 2"));
        m.add(new MenuItem("Menu item 3"));
        m.add(new MenuItem("-")); // Trennlinie

        MenuItem fileMenuItem = new MenuItem(FILEDIALOGMENUITEM);
        fileMenuItem.addActionListener(this);
        m.add(fileMenuItem);

        mb.add(m);
        setMenuBar(mb);

        //Unten am Fenster kleine GUI-Komponenten anbringen
        bottomPanel.add(new TextField("TextField"));
        bottomPanel.add(new Button("Button"));
        bottomPanel.add(new Checkbox("Checkbox"));
        Choice c = new Choice();
        c.add("Choice Item 1");
        c.add("Choice Item 2");
        c.add("Choice Item 3");
        bottomPanel.add(c);
        add("South", bottomPanel);

        //In der Mitte des Fensters grosse GUI-Komponenten anbringen
        centerPanel.setLayout(new GridLayout(1,2));
        //Canvas in linke Spalte setzen
        centerPanel.add(new MyCanvas());
        //Ein Label und ein Textfeld in die rechte Spalte setzen
        Panel p = new Panel();
        p.setLayout(new BorderLayout());
        p.add("North", new Label("Label", Label.CENTER));
        p.add("Center", new TextArea("TextArea", 5, 20));
        centerPanel.add(p);
        add("Center", centerPanel);

        //Im rechten Bereich des Fensters eine Liste zeigen
        List l = new List(3, false);
        for (int i = 1; i <= 10; i++) {
            l.add("List item " + i);
        }
        add("East", l);

        addWindowListener(new WindowAdapter() {
            public void windowClosing(WindowEvent e) {
                if (inAnApplet) {
                    dispose();
                } else {
                    System.exit(0);
                }
            }
        });
    }
}

```

```

    }
}

public void actionPerformed(ActionEvent event) {
    // Wir zeigen den FileDialog, wenn der Benutzer
    // diesen im Menu auswählt
    FileDialog fd = new FileDialog(this, "FileDialog");
    fd.setVisible(true);
}

public static void main(String[] args) {
    GUIWindow window = new GUIWindow();
    window.inAnApplet = false;

    window.setTitle("The AWT Components");
    window.pack();
    window.setVisible(true);
}

//Subklasse von Canvas, welche etwas in den Canvas zeichnet
class MyCanvas extends Canvas {

    public void paint(Graphics g) {
        int w = getSize().width;
        int h = getSize().height;
        g.drawRect(0, 0, w - 1, h - 1);
        g.drawString("Canvas", (w - g.getFontMetrics().stringWidth("Canvas"))/2,
            10);

        g.setFont(new Font("Helvetica", Font.PLAIN, 8));
        g.drawLine(10,10, 100,100);
        g.fillRect(9,9,3,3);
        g.drawString("(10,10)", 13, 10);
        g.fillRect(49,49,3,3);
        g.drawString("(50,50)", 53, 50);
        g.fillRect(99,99,3,3);
        g.drawString("(100,100)", 103, 100);
    }

    //Nötig, damit Canvas sicher gezeichnet wird
    public Dimension getMinimumSize() {
        return new Dimension(150,130);
    }

    //Nötig, damit Canvas sicher gezeichnet wird
    public Dimension getPreferredSize() {
        return getMinimumSize();
    }
}
}

```

