LABORATORIJSKE VJEŽBE 5

1. Program kreira formu koja na sebi ima dva *check* dugmeta, jednu labelu i dva komandna dugmeta. Prvo *check* dugme treba da omogući aktivnost prvog komandnog dugmeta, a drugo aktivnost drugog. Klikom na prvo dugme korisniku se otvara dijalog – prozor, koji od njega traži da unese neku riječ. Tu riječ program treba da ispiše na labeli dugmeta. Klikom na drugo dugme potrebno je na labeli ispisati tekst koji se nalazi na prvom dugmetu.

```java
import java.awt.*;
import javax.swing.*;

public class Dugme {

    public static void main(String[] args) {
        ButtonFrame frame = new ButtonFrame();
    }
}

class ButtonFrame extends JFrame {

    public ButtonFrame() {
        JButton B1 = new JButton("1. Dugme");
        JButton B2 = new JButton("2. Dugme");
        JLabel L1 = new JLabel();
        JCheckBox C1 = new JCheckBox("I dugme");
        JCheckBox C2 = new JCheckBox("II dugme");
        Container sp = getContentPane();
        setTitle("Dugme");
        setSize(200, 250);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setVisible(true);
        this.add(B1);
        this.add(B2);
        this.add(C1);
        this.add(C2);
        this.add(L1);
        B1.setBounds(20, 30, 90, 20);
        B2.setBounds(20, 70, 90, 20);
        L1.setBounds(70, 120, 60, 20);
        C1.setBounds(120, 30, 90, 20);
        C2.setBounds(120, 70, 90, 20);
        L1.setText("");
        PritisakDugmeta Ak1 = new PritisakDugmeta(B1, C1);
        PritisakDugmeta1 Ak2 = new PritisakDugmeta1(B2, B1, C2, L1);
        B1.addActionListener(Ak1);
        B2.addActionListener(Ak2);
    }
}


class PritisakDugmeta implements ActionListener {

    JButton B;
    JCheckBox C;

    PritisakDugmeta(JButton B, JCheckBox C) {
        this.B = B;
        this.C = C;
    }
```
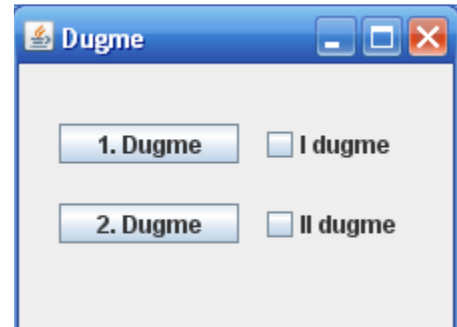
```java
        public void actionPerformed(ActionEvent e) {
            if (C.isSelected() == true) {
                String b = JOptionPane.showInputDialog(null, "Unesite ime
    dugmeta", "Ime dugmeta", JOptionPane.WARNING_MESSAGE);
                B.setText(b);
            }
        }
    }

    class PritisakDugmeta1 implements ActionListener {

        JButton B1, B2;
        JCheckBox C;
        JLabel L;

        PritisakDugmeta1(JButton B1, JButton B2, JCheckBox C, JLabel L) {
            this.B1 = B1;
            this.B2 = B2;
            this.C = C;
            this.L = L;
        }

        public void actionPerformed(ActionEvent e) {
            if (C.isSelected() == true) {
                L.setText(B2.getText());
            }
        }
    }
```

2. Kada korisnik pokrene program kreira se prozor koji sadrži jednu labelu i jedno tekstualno polje.

-   Prilikom pokretanja programa reagujemo na događaj koji generiše prozor. Korisniku se pojavi *input dialog box* u koji se unesi određeni string. Klikom na dugme OK sa dijalog prozora upisani tekst se ispisuje na labeli.

-   Ako sada kliknemo na prozor koji sadrži labelu realizujemo događaj na mišu (*mouseEvent*) kojim aktiviramo *input box*. Ono što tada upišemo u *input box* upisuje se u tekstualno polje pritiskom na dugme OK.

```java
import java.awt.*;
import javax.swing.*;

public class TestWindowListener {

    public static void main(String[] args) {
        SmartFrame frame = new SmartFrame();
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setVisible(true);
    }
}

class SmartFrame extends JFrame {

    JLabel L1 = new JLabel();
    JTextField T1 = new JTextField(20);

    public SmartFrame() {
```
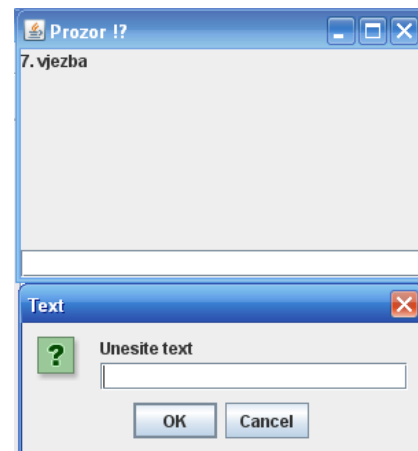
```java
            setTitle("Prozor !?");
            setSize(300, 200);
            WindowListener a = new adapter(L1);
            setLayout(new BorderLayout());
            addWindowListener(a);
            addMouseListener(new MouseHandler(T1));
            add(BorderLayout.NORTH, L1);
            add(BorderLayout.SOUTH, T1);
        }
    }

    public class adapter extends WindowAdapter {

        JLabel l;

        adapter(JLabel l) {
            this.l = l;
        }

        public void windowOpened(WindowEvent e) {
            String  s  =  JOptionPane.showInputDialog(null,  "Unesite  text",  "Text",
    JOptionPane.WARNING_MESSAGE);
            if (s != null) {
                l.setText(s);
            }
        }
    }

    class MouseHandler extends MouseAdapter {
    JTextField t;
        MouseHandler (JTextField c ){
        t=c;
        }
        public void mouseClicked(MouseEvent e) {
        String s=JOptionPane.showInputDialog(null, "Unesite
        text","Text",JOptionPane.QUESTION_MESSAGE);
        if(s != null)
        t.setText(s);
        }
    }
```

3. Napisati program koji kreira formu na kojoj se nalazi jedno dugme sa **Prikazi/Sakrij**. Prvi pritisak na pomenuto dugme na formi crta olimpijske krugove, dok ih drugi skriva, naizmjenično. Ispod slike olimpijskih krugova treba da stoji natpis „Olimpijski krugovi“.

```java
import java.awt.*;
import javax.swing.*;

public class Prikaz{
    public static void main(String[] args){
    ButtonFrame frame = new ButtonFrame();
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setVisible(true);
    }
}

class ButtonFrame extends JFrame{
    public ButtonFrame(){
    setTitle("Prikazi/sakrij olimpijske krugove");
    setSize(400,300);
    Container cp = getContentPane();
```

```java
        ButtonPanel panel = new ButtonPanel();
        cp.add(panel);
        }
}


class ButtonPanel extends JPanel {

    int ind = 0;

    public ButtonPanel() {
        JButton D = new JButton("Prikazi/Sakrij");
        add(D);
        // Kreiramo osluškivace ...
        PritisakDugmeta DAction = new PritisakDugmeta();
        D.addActionListener(DAction);
    }

    public void paintComponent(Graphics g) {
        super.paintComponent(g);
        Graphics2D g2 = (Graphics2D) g;
        if (ind == 1) {
            Font f = new Font("Arial", Font.BOLD, 15);
            g.setFont(f);
            g.drawString("<<<Olimpijski krugovi>>>", 75, 250);
            g2.setPaint(Color.BLUE);
            double a = 75, b = 50, c = 100, d = 100;
            Ellipse2D el = new Ellipse2D.Double();
            Rectangle2D r = new Rectangle2D.Double(a, b, c, d);
            el.setFrame(r);
            g2.draw(el);
            r = new Rectangle2D.Double(a + 2 * c / 3, b, c, d);
            el.setFrame(r);
            g2.setPaint(Color.BLACK);
            g2.draw(el);
            r = new Rectangle2D.Double(a + 4 * c / 3, b, c, d);
            el.setFrame(r);
            g2.setPaint(Color.RED);
            g2.draw(el);
            r = new Rectangle2D.Double(a + c / 4, b + 2 * d / 3, c, d);
            el.setFrame(r);
            g2.setPaint(Color.YELLOW);
            g2.draw(el);
            r = new Rectangle2D.Double(a + c, b + 2 * d / 3, c, d);
            el.setFrame(r);
            g2.setPaint(Color.GREEN);
            g2.draw(el);
        }
    }

    private class PritisakDugmeta implements ActionListener {

        public void actionPerformed(ActionEvent e) {
            Graphics a = getGraphics();
            if (ind == 1) {
                ind = 0;
            } else {
                ind = 1;
            }
            repaint();
        }
    }
}
```