ASSIGNMENT-12

20BCSE50_Kumar Jijnasu_CSE_C1-08

1..

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

public class MyAWT extends Frame implements ActionListener
{
    TextField t1,t2;
    Label l1,l2;
    Button b;

    MyAWT()
    {
        super("MyFrame");
        t1 = new TextField();
        t2 = new TextField();

        l1 = new Label("Enter your Name: ");
        l2 = new Label("Output: ");

        b = new Button("Click Here");

        l1.setBounds(70, 80, 150, 20);
        t1.setBounds(70,100,150,20);
        l2.setBounds(70, 130, 150, 20);
        t2.setBounds(70,150,150,20);
        b.setBounds(100,200,100,50);
        b.addActionListener(this);
        add(l1);
        add(t1);
        add(l2);
        add(t2);
        add(b);
        setSize(400,400);
        setLayout(null);
        setVisible(true);
        this.addWindowListener(new WindowAdapter()
        {
            @Override
            public void windowClosing(WindowEvent e) {
                System.exit(0);
            }
        });
    }
```

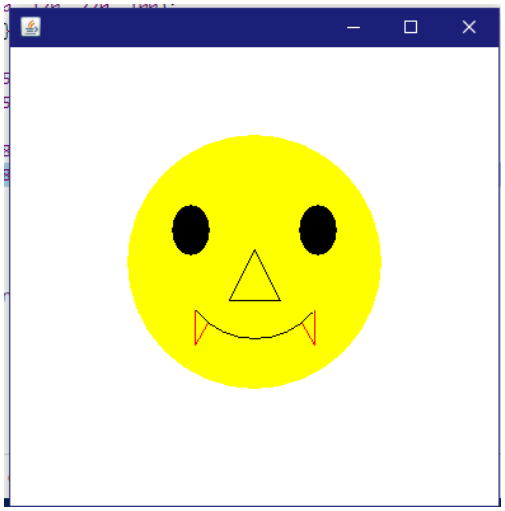
```
    public void actionPerformed(ActionEvent e)
    {
        String s1 = t1.getText();
        if(e.getSource()==b)
            t2.setText("My Name: "+s1);
    }

    public static void main(String[] args) {
        new MyAWT();
    }
}
```

2..

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

import javax.swing.WindowConstants;

public class MySmiley extends Frame// implements ActionListener
{

    MySmiley()
    {
        // Graph
        this.addWindowListener(new WindowAdapter()
        {
            @Override
            public void windowClosing(WindowEvent e) {
                System.exit(0);
            }
        });

        setSize(400,400);
        setVisible(true);
    }

    @Override
    public void paint(Graphics g) {
        g.setColor(Color.yellow);
        g.fillOval(100, 100, 200, 200);
        g.setColor(Color.black);
        g.fillOval(135, 155, 30, 40);
        g.fillOval(235, 155, 30, 40);
        g.drawLine(200, 190, 180, 230);
        g.drawLine(200, 190, 220, 230);
        g.drawLine(180, 230, 220, 230);
        g.drawArc(140, 140, 120, 120, 220, 100);
```

```
        int x[] = {153,163,153}, y[] ={238,248,238};
        g.setColor(Color.red);
        g.drawLine(153, 238, 153, 265);
        g.drawLine(163, 248, 153, 265);
        g.fillPolygon(x,y,3);
        g.drawLine(400-153, 238, 400-153, 265);
        g.drawLine(400-163, 248, 400-153, 265);

    }

    public static void main(String[] args) {
        new MySmiley();
    }
}
```

Output:



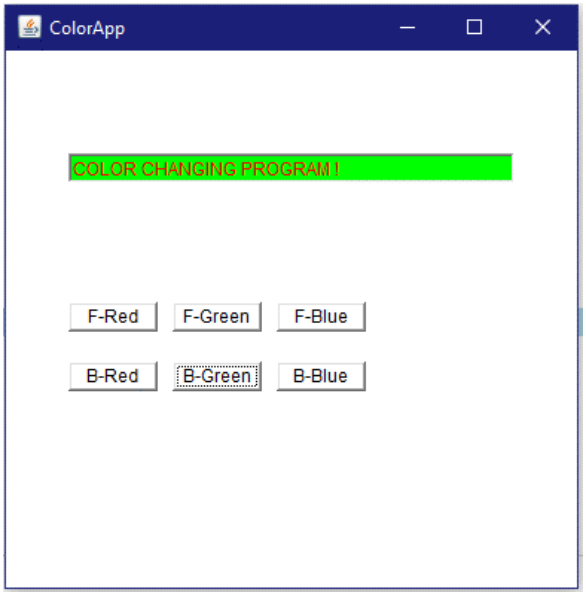
3..

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

public class ChangeColor extends Frame implements ActionListener{
    TextField text = new TextField("COLOR CHANGING PROGRAM !");
    Button red,green,blue,red2,green2,blue2;
    ChangeColor(){
        setSize(400,400);
        setLayout(null);
        setTitle("ColorApp");
        setVisible(true);

        text.setBounds(50, 100, 300, 20);

        red2 = new Button("B-Red");
        green2 = new Button("B-Green");
```

```
    blue2 = new Button("B-Blue");
    red = new Button("F-Red");
    green = new Button("F-Green");
    blue = new Button("F-Blue");


    red.setBounds(50, 200, 60, 20);
    green.setBounds(120, 200, 60, 20);
    blue.setBounds(190, 200, 60, 20);
    red2.setBounds(50, 240, 60, 20);
    green2.setBounds(120, 240, 60, 20);
    blue2.setBounds(190, 240, 60, 20);

    red.addActionListener(this);
    green.addActionListener(this);
    blue.addActionListener(this);
    red2.addActionListener(this);
    green2.addActionListener(this);
    blue2.addActionListener(this);


    add(text);
    add(red);
    add(blue);
    add(green);
    add(red2);
    add(blue2);
    add(green2);

    this.addWindowListener(new WindowAdapter(){
        public void windowClosing(WindowEvent e){
            System.exit(0);
        }
    });

}


public void actionPerformed(ActionEvent e) {
    if(e.getSource() == red2){
        text.setBackground(Color.red);
    }
    else if(e.getSource() == green2){
        text.setBackground(Color.green);
    }
    else if(e.getSource() == blue2){
        text.setBackground(Color.blue);
   }
   if(e.getSource() == red){
        text.setForeground(Color.red);
```

```
        }
        else if(e.getSource() == green){
            text.setForeground(Color.green);
        }
        else if(e.getSource() == blue){
            text.setForeground(Color.blue);
       }

    }
    public static void main(String[] args) {
        new ChangeColor();
    }
}
```

Output:



4..

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

// import javax.swing.plaf.basic.BasicInternalFrameTitlePane.CloseAction;
// import javax.swing.text.AttributeSet.ColorAttribute;

public class CalculatorApp extends Frame implements ActionListener
{
    TextField t;
    Button b1,b2,b3,b4,b5,b6,b7,b8,b9,b0,bp,bm,bi,bd,bdot,be,back,clr;
    String s="";
    char opr='a';
    double x,y,res,var,temp=0,xdone=0;
```

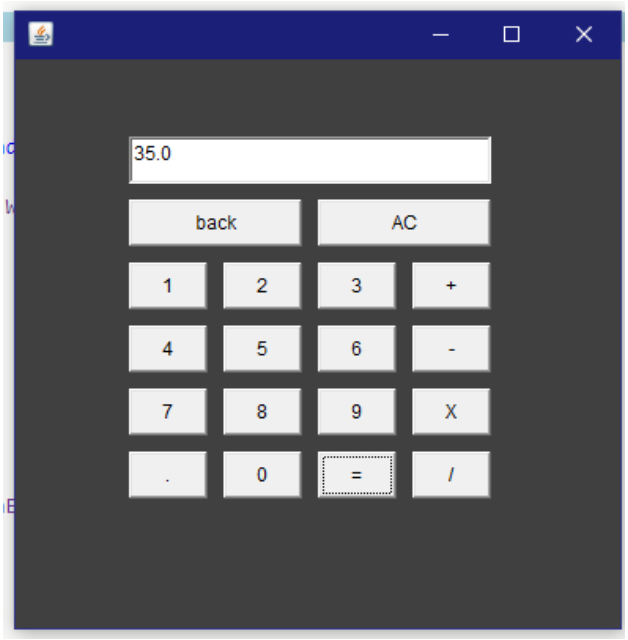
```
CalculatorApp()
{
    int lm=80,ld=40,ll=60,lh=30,lbw=50;//l=500,b=500,
    t = new TextField();
    b1 = new Button("1");
    b2 = new Button("2");
    b3 = new Button("3");
    b4 = new Button("4");
    b5 = new Button("5");
    b6 = new Button("6");
    b7 = new Button("7");
    b8 = new Button("8");
    b9 = new Button("9");
    b0 = new Button("0");
    bp = new Button("+");
    bm = new Button("-");
    bi = new Button("X");
    bd = new Button("/");
    bdot = new Button(".");
    be = new Button("=");
    back = new Button("back");
    clr = new Button("AC");



    t.setBounds(lm, lm, ll*3+lbw, lh);

    back.setBounds(lm, lm+ld, lbw+ll, lh);
    clr.setBounds(lm+ll*2, lm+ld, lbw+ll, lh);

    b1.setBounds(lm, lm+ld*2, lbw, lh);
    b2.setBounds(lm+ll, lm+ld*2, lbw, lh);
    b3.setBounds(lm+ll*2, lm+ld*2, lbw, lh);
    bp.setBounds(lm+ll*3, lm+ld*2, lbw, lh);

    b4.setBounds(lm, lm+ld*3, lbw, lh);
    b5.setBounds(lm+ll, lm+ld*3, lbw, lh);
    b6.setBounds(lm+ll*2, lm+ld*3, lbw, lh);
    bm.setBounds(lm+ll*3, lm+ld*3, lbw, lh);

    b7.setBounds(lm, lm+ld*4, lbw, lh);
    b8.setBounds(lm+ll, lm+ld*4, lbw, lh);
    b9.setBounds(lm+ll*2, lm+ld*4, lbw, lh);
    bi.setBounds(lm+ll*3, lm+ld*4, lbw, lh);

    bdot.setBounds(lm, lm+ld*5, lbw, lh);
    b0.setBounds(lm+ll, lm+ld*5, lbw, lh);
    be.setBounds(lm+ll*2, lm+ld*5, lbw, lh);
    bd.setBounds(lm+ll*3, lm+ld*5, lbw, lh);
```

```
        add(t);  add(b1);  add(b2);  add(b3);  add(b4);  add(b5);  add(b6);  add(b7);  add(b8
);  add(b9);  add(bp);  add(bm);  add(bi);  add(bdot);  add(b0);  add(be);  add(bd);  add(bac
k);  add(clr);
        t.addActionListener(this);
        b1.addActionListener(this);
        b2.addActionListener(this);
        b3.addActionListener(this);
        b4.addActionListener(this);
        b5.addActionListener(this);
        b6.addActionListener(this);
        b7.addActionListener(this);
        b8.addActionListener(this);
        b9.addActionListener(this);
        bp.addActionListener(this);
        bm.addActionListener(this);
        bi.addActionListener(this);
        bdot.addActionListener(this);
        b0.addActionListener(this);
        be.addActionListener(this);
        bd.addActionListener(this);
        back.addActionListener(this);
        clr.addActionListener(this);



        setSize(lm*2+ll*4,lm*2+ll*4);
        setLayout(null);
        setVisible(true);
        setBackground(Color.darkGray);
        this.addWindowListener(new WindowAdapter(){
            @Override
            public void windowClosing(WindowEvent e) {
                System.exit(0);
            }
        });
    }



    @Override
    public void actionPerformed(ActionEvent e) {
        if(e.getSource()==b1){
            s = s+"1";
            t.setText(s);
        }
        if(e.getSource()==b2){
```

```
            s = s+"2";
            t.setText(s);
        }
        if(e.getSource()==b3){
            s = s+"3";
            t.setText(s);
        }
        if(e.getSource()==b4){
            s = s+"4";
            t.setText(s);
        }
        if(e.getSource()==b5){
            s = s+"5";
            t.setText(s);
        }
        if(e.getSource()==b6){
            s = s+"6";
            t.setText(s);
        }
        if(e.getSource()==b7){
            s = s+"7";
            t.setText(s);
        }
        if(e.getSource()==b8){
            s = s+"8";
            t.setText(s);
        }
        if(e.getSource()==b9){
            s = s+"9";
            t.setText(s);
        }
        if(e.getSource()==b0){
            s = s+"0";
            t.setText(s);
        }
        if(e.getSource()==bdot){
            s = s+".";
            t.setText(s);
        }
        if(e.getSource()==bp){operate(opr);opr = '+';}
        if(e.getSource()==bm){operate(opr);opr = '-';}
        if(e.getSource()==bi){operate(opr);opr = '*';}
        if(e.getSource()==bd){operate(opr);opr = '/';}
        if(e.getSource()==be){operate(opr);xdone = 0;}
        if(e.getSource()==back){  s = t.getText();  s=s.substring(0, s.length()-
1);  t.setText(s);}
        if(e.getSource()==clr){t.setText("");s="";xdone = 0;}
    }

    int operate(char opr)
```

```
    {
        if(xdone==0)
        {
            s = t.getText();
            x = Double.parseDouble(s);
            xdone = 1;
            s = "";
            t.setText(s);
        }
        else
        {
            y = Double.parseDouble(s);
            if(opr=='+')
                x += y;
            else if(opr=='-')
                x -= y;
            else if(opr=='*')
                x *= y;
            else if(opr=='/')
                if(y==0)
                {
                    t.setText("Undefined...");
                    return 0;
                }
                else
                    x /= y;
            else
            {
                t.setText("Invalid operator...");
                return 0;
            }
            s = Double.toString(x);
            t.setText(s);
            s = "";
        }
        return 0;
    }
    public static void main(String[] args) {
        new CalculatorApp();
    }

}
```

Output:



5..

```
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.WindowAdapter;
import java.awt.event.WindowEvent;
import java.io.FileWriter;

public class FormAWT extends Frame {

    Label l0,l1,l2,l3,l4,l5,l6;
    TextField t1,t2,t3,t4,t5,t6;

    public FormAWT() {
        setTitle("Application Form");
        setSize(500,350);
        setVisible(true);
        setLayout(null);
        setBackground(Color.gray);

        //Label
        l0 = new Label("Application Form");
        l0.setForeground(new Color(13, 17, 55));
        l0.setFont(new Font("Helvetica",Font.BOLD,40));
        l0.setBounds(100,20,330,70);

        l1 = new Label("Name: ");
        l1.setBounds(70,100,50,20);
        l1.setForeground(new Color(13, 17, 55));
        l1.setFont(new Font("Arial",Font.BOLD,15));
```

```
l2 = new Label("Age: ");
l2.setBounds(70,130,50,20);
l2.setForeground(new Color(13, 17, 55));
l2.setFont(new Font("Arial",Font.BOLD,15));

l3 = new Label("Sex: ");
l3.setBounds(70,160,50,20);
l3.setForeground(new Color(13, 17, 55));
l3.setFont(new Font("Arial",Font.BOLD,15));

l4 = new Label("Date Of Birth: ");
l4.setBounds(70,190,110,20);
l4.setForeground(new Color(13, 17, 55));
l4.setFont(new Font("Arial",Font.BOLD,15));

l5 = new Label("Email Id: ");
l5.setBounds(70,220,80,20);
l5.setForeground(new Color(13, 17, 55));
l5.setFont(new Font("Arial",Font.BOLD,15));

l6 = new Label("Year: ");
l6.setBounds(70,250,50,20);
l6.setForeground(new Color(13, 17, 55));
l6.setFont(new Font("Arial",Font.BOLD,15));

add(l0);
add(l1);
add(l2);
add(l3);
add(l4);
add(l5);
add(l6);

//Textarea
t1 = new TextField();
t1.setBounds(120,100,150,20);
t1.setBackground(Color.lightGray);

t2 = new TextField();
t2.setBounds(120,130,30,20);
t2.setBackground(Color.lightGray);

t3 = new TextField();
t3.setBounds(120,160,39,21);
t3.setBackground(Color.lightGray);

t4 = new TextField();
t4.setBounds(178,190,100,20);
t4.setBackground(Color.lightGray);
```

```
        t5 = new TextField();
        t5.setBounds(150,220,190,20);
        t5.setBackground(Color.lightGray);

        t6 = new TextField();
        t6.setBounds(120,250,60,22);
        t6.setBackground(Color.lightGray);

        add(t1);
        add(t2);
        add(t3);
        add(t4);
        add(t5);
        add(t6);

        Button btn = new Button("Submit");
        btn.setBounds(120,290,50,30);
        btn.setBackground(Color.green);
        add(btn);

        btn.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                String name = t1.getText();
                String age = t2.getText();
                String sex = t3.getText();
                String dob = t4.getText();
                String emailId = t5.getText();
                String year = t6.getText();

                try{
                    FileWriter writer = new FileWriter("Application Form.txt",true);
                    writer.write(System.getProperty("line.separator"));
                    writer.write("" + name + " " + age + " " + sex + " " + dob + " " +
emailId + " " + year );
                    writer.write(System.getProperty("line.separator"));
                    writer.close();
                }
                catch (Exception ex){
                    System.out.println("There is something wrong");
                }
            }
        });

        this.addWindowListener(new WindowAdapter() {
            @Override
            public void windowClosing(WindowEvent e) {
                dispose();
            }
```

```
        });
    }

    public static void main(String[] args) {
        new FormAWT();
    }
}
```