ASSIGNMENT-13

20BCSE50_Kumar Jijnasu_CSE_C1-08

1..

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

public class MyAWT extends JFrame implements ActionListener
{
    JTextField t1,t2;
    JLabel l1,l2;
    JButton b;

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

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

        b = new JButton("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);
            }
        });
    }
```

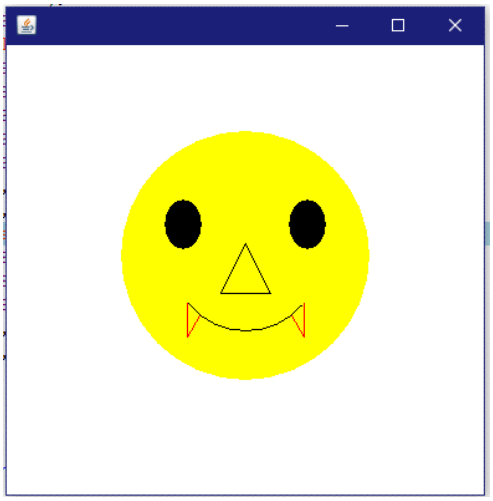
```
    public void actionPerformed(ActionEvent e)
    {
        String s1 = t1.getText();
        if(e.getSource()==b)
            t2.setText("My Name: "+s1);
    }

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

2..

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

import javax.swing.*;

public class MySmiley extends JFrame// 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.drawLine(153, 238, 153, 265);
        g.drawLine(163, 248, 153, 265);
        g.setColor(Color.red);
        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:



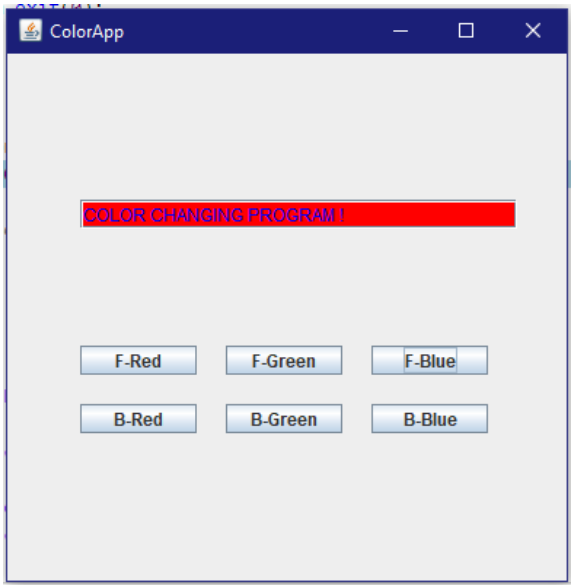
3..

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

public class ChangeColor extends JFrame implements ActionListener{
    JTextField text = new JTextField("COLOR CHANGING PROGRAM !");
    JButton red,green,blue,red2,green2,blue2;
    ChangeColor(){

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

        red2 = new JButton("B-Red");
        green2 = new JButton("B-Green");
        blue2 = new JButton("B-Blue");
        red = new JButton("F-Red");
        green = new JButton("F-Green");
```

```
        blue = new JButton("F-Blue");


        red.setBounds(50, 200, 80, 20);
        green.setBounds(120+30, 200, 80, 20);
        blue.setBounds(190+60, 200, 80, 20);
        red2.setBounds(50, 240, 80, 20);
        green2.setBounds(120+30, 240, 80, 20);
        blue2.setBounds(190+60, 240, 80, 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);
            }
        });


        setTitle("ColorApp");
        setSize(400,400);
        setLayout(null);
        setVisible(true);


    }


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

public class CalculatorApp extends JFrame implements ActionListener
{
    JTextField t;
```

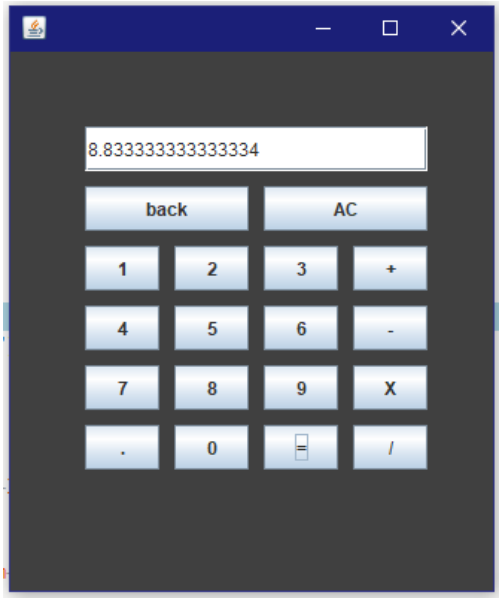
```
JButton b1,b2,b3,b4,b5,b6,b7,b8,b9,b0,bp,bm,bi,bd,bdot,be,back,clr;
String s="";
char opr='a';
double x,y,res,var,temp=0,xdone=0;

CalculatorApp()
{
    int lm=50,ld=40,ll=60,lh=30,lbw=50;//l=500,b=500,
    t = new JTextField();
    b1 = new JButton("1");
    b2 = new JButton("2");
    b3 = new JButton("3");
    b4 = new JButton("4");
    b5 = new JButton("5");
    b6 = new JButton("6");
    b7 = new JButton("7");
    b8 = new JButton("8");
    b9 = new JButton("9");
    b0 = new JButton("0");
    bp = new JButton("+");
    bm = new JButton("-");
    bi = new JButton("X");
    bd = new JButton("/");
    bdot = new JButton(".");
    be = new JButton("=");
    back = new JButton("back");
    clr = new JButton("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*5);
        setLayout(null);
        setVisible(true);
        // this.setBackground(Color.black);
        // setBackground(Color.black);
        getContentPane().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 javax.swing.*;
import java.awt.event.*;
class FormSwing extends JFrame implements ActionListener{
    JLabel l1,l2,l3,l4,l5,l6,l7,l8,a,b,f;
    JTextField tf1,tf2,tf3,tf4,tf5,tf6,tf7;
    JButton d;
    FormSwing(){

        a=new JLabel();
        a.setBounds(160,330,300,20);
        b=new JLabel();
        b.setBounds(160,350,300,20);
        f=new JLabel();
        f.setBounds(160,370,300,20);

        l1=new JLabel("REGISTRATION FORM: ");
        l1.setBounds(50,10,150,30);

        l2=new JLabel("FIRST NAME: ");
        l2.setBounds(40,50,120,20);
        tf1=new JTextField();
        tf1.setBounds(40,70,120,30);

        l3=new JLabel("MIDDLE NAME: ");
        l3.setBounds(170,50,120,20);
        tf2=new JTextField();
        tf2.setBounds(170,70,120,30);
```

```
l4=new JLabel("LAST NAME: ");
l4.setBounds(300,50,120,20);
tf3=new JTextField();
tf3.setBounds(300,70,120,30);

l5=new JLabel("Date: ");
l5.setBounds(40,120,120,20);
tf4=new JTextField();
tf4.setBounds(40,140,120,30);

l6=new JLabel("Month: ");
l6.setBounds(170,120,120,20);
tf5=new JTextField();
tf5.setBounds(170,140,120,30);

l7=new JLabel("Year: ");
l7.setBounds(300,120,120,20);
tf6=new JTextField();
tf6.setBounds(300,140,120,30);

l8=new JLabel("Sex: ");
l8.setBounds(40,190,120,20);
tf7=new JTextField();
tf7.setBounds(40,210,120,30);

d=new JButton("Show");
d.setBounds(185,250,90,50);
d.addActionListener(this);

Container c= this.getContentPane();

c.add(tf1);
c.add(tf2);
c.add(tf3);
c.add(tf4);
c.add(tf5);
c.add(tf6);
c.add(tf7);
c.add(d);
c.add(l1);
c.add(l2);
c.add(l3);
c.add(l4);
c.add(l5);
c.add(l6);
c.add(l7);
c.add(l8);
c.add(a);
c.add(b);
```

```
        c.add(f);


        setSize(500,500);
        setLayout(null);
        setVisible(true);


        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }
    public void actionPerformed(ActionEvent e){
        String s1=tf1.getText();
        String s2=tf2.getText();
        String s3=tf3.getText();
        String s4=tf4.getText();
        String s5=tf5.getText();
        String s6=tf6.getText();
        String s7=tf7.getText();
        if(e.getSource()==d){
            String result1="My name is "+s1+" "+s2+" "+s3;
            a.setText(result1);
            String result2="Dob- "+s4+"/"+s5+"/"+s6;
            b.setText(result2);
            String result3="Sex- "+s7;
            f.setText(result3);
        }
    }
    public static void main(String args[]){
        new FormSwing();
    }
}
```