MICRO PROJECT

AWT CONTROL

Submitted by:

Nimal Joseph Sebastian

INMCA, S6

Roll No: 45

Submitted to:

Ms. Sona Maria Sebastian

Asst. Prof Dept. of MCA

MICRO PROJECTS-AWT CONTROLS

1. Create a program to change the color of a text box to green when click on a button.

ANSWER

```
import java.applet.*; import
java.awt.*;
import java.awt.event.*;
/*
<applet code="Color1.class"width="350"height="150">
</applet>
```

```
*/
public class Color1 extends Applet implements ActionListener
{
     Button b;
TextField tf;
public void init()
{
  tf=new TextField();
   b=new Button("Click");


   add(b);
add(tf);
   b.addActionListener(this);
}
    public void actionPerformed(ActionEvent e)
{
    tf.setBackground(Color.green);
}
}
```

OUTPUT

---

2. Create a program to display an image when click on a button

ANSWER

```
import java.applet.*;
import java.awt.*;
import java.awt.event.*;
/*<applet code ="EventImage.class" width=600 height=600></applet>*/ public
class EventImage extends Applet implements ActionListener
{
```

```
    int a;
    Button b;
    Image img;

    public void init()
    {               b= new
Button("Show Me");              add(b);
            b.addActionListener(this);
    }
    public void actionPerformed(ActionEvent e)
    {
            a=1;

    }
    public void paint(Graphics g)
    {
                    img = getImage(getCodeBase(), "image.jpg");
            if(a==1)
            {
                    g.drawImage(img, 0, 0, this);
            }
    }
}
```

OUTPUT

3.Design and implement a calculator for arithmetic operation using AWT control

ANSWER

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

/*
<applet code="Cal" width=300 height=300>
</applet>
*/

public class Cal extends Applet implements
ActionListener
{
```

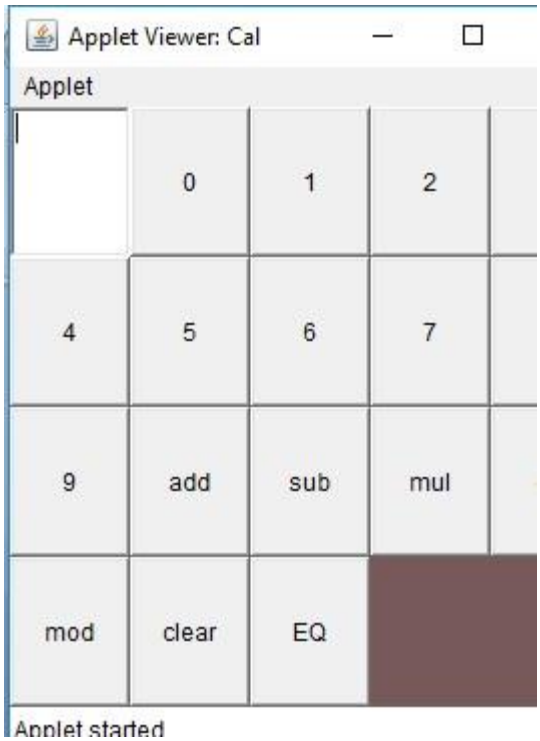
```
        String msg=" ";
int v1,v2,result;
        TextField t1;
        Button b[]=new Button[10];
Button add,sub,mul,div,clear,mod,EQ;
        char OP;
        public void init()
        {
                Color k=new Color(120,89,90);
setBackground(k);               t1=new TextField(10);
        GridLayout gl=new GridLayout(4,5);
setLayout(gl);                  for(int i=0;i<10;i++)
                {
                        b[i]=new Button(""+i);
                }
         add=new          Button("add");
                sub=new  Button("sub");
                mul=new  Button("mul");
                div=new    Button("div");
                mod=new
                Button("mod");
                clear=new
                Button("clear");
                EQ=new Button("EQ");
                t1.addActionListener(this);
                add(t1);
                for(int i=0;i<10;i++)
                {
```

```
                add(b[i]);
            }
            add(add);
add(sub);           add(mul);
        add(div);
add(mod);           add(clear);
        add(EQ);
            for(int i=0;i<10;i++)
            {
                b[i].addActionListener(this);
            }
            add.addActionListener(this);
sub.addActionListener(this);            mul.addActionListener(this);
div.addActionListener(this);        mod.addActionListener(this);
clear.addActionListener(this);
            EQ.addActionListener(this);
        }

        public void actionPerformed(ActionEvent ae)
        {
         String str=ae.getActionCommand();  char
        ch=str.charAt(0);
            if ( Character.isDigit(ch))
t1.setText(t1.getText()+str);
            else
            if(str.equals("add"))
            {
                v1=Integer.parseInt(t1.getText());
```

```
        OP='+';
        t1.setText("");
}
else if(str.equals("sub"))
{
        v1=Integer.parseInt(t1.getText());
        OP='-';
        t1.setText("");
}
else if(str.equals("mul"))
{
        v1=Integer.parseInt(t1.getText());
        OP='*';
        t1.setText("");
} else
if(str.equals("div"))
{
        v1=Integer.parseInt(t1.getText());
        OP='/';
t1.setText("");
}
else if(str.equals("mod"))
{
        v1=Integer.parseInt(t1.getText());
        OP='%';
        t1.setText("");
}
if(str.equals("EQ"))
```

```
                {
                        v2=Integer.parseInt(t1.getText());
                        if(OP=='+')
        result=v1+v2;
                        else if(OP=='-')
                                result=v1-v2;
                else if(OP=='*')
        result=v1*v2;                           else
if(OP=='/')
                                result=v1/v2;
                else if(OP=='%')
        result=v1%v2;
t1.setText(""+result);
                }
                if(str.equals("clear"))
                {
                        t1.setText("");
                }
        }
}
```

Output



4.Design a registration form that accept student details and display it using AWT Controls

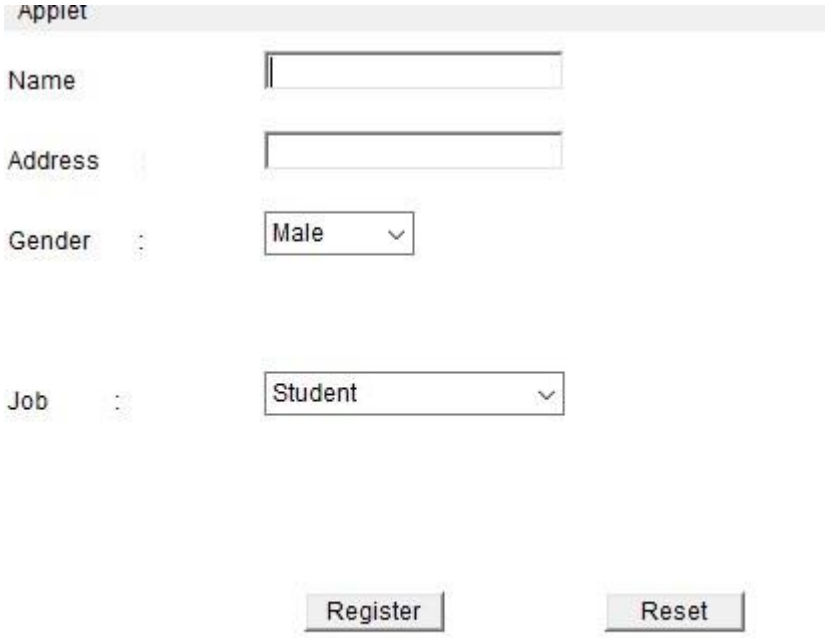
ANSWER

```
import java.awt.*;
import java.applet.*;
import java.awt.event.*;
/*<html>
<head><title>Register</title></head>
<body>
<applet code="Tes1.class" width=230 height=300></applet>
</body>
</html>*/
public  class Tes1 extends Applet
{
Label l1,l2,l3,l4,l5;
TextField t1,t2;
Choice gender,job;

Button b1,b2;
 String msg= new String("");
public void init()
   {
   setLayout(null);     l1=new
Label("Name          :");
```

```
l1.setBounds(0,0,50,50);
t1=new TextField(20);
   t1.setBounds(130,10,150,20);
   add(l1);    add(t1);    l2=new
Label("Address       :");
l2.setBounds(0,40,70,50);
t2=new TextField(20);
   t2.setBounds(130,50,150,20);
   add(l2);    add(t2);    l3=new
Label("Gender        :");
l3.setBounds(0,80,70,50);
Choice gender=new Choice();
gender.addItem("Male");
gender.addItem("Female");

gender.setBounds(130,90,75,20);
add(l3);    add(gender);
   Label l4=new Label("Job          :");
l4.setBounds(0,160,120,50);
Choice        job=new        Choice();
job.addItem("Student");
job.addItem("Teacher");
job.addItem("Other");
job.setBounds(130,170,150,80);
add(l4);   add(job);   l5=new Label();
l5.setBounds(200,300,250,250);
add(l5);     b2=new  Button("Reset");
b2.setBounds(300,280,70,20);
   add(b2);
b2.addActionListener(new ActionListener(){ public
void actionPerformed(ActionEvent e)
  {

l5.setText("registration failed");
t1.setText(" "); t2.setText(" ");

}});
   b1=new Button("Register");
b1.setBounds(150,280,70,20);
   add(b1);

   b1.addActionListener(new ActionListener(){
public void actionPerformed(ActionEvent e)
  {
```

```
    l5.setText("Registration Successful....");
}});


  }

  }
```

OUTPUT



5.Create a program to change the color of a text box to red when mouse over it

ANSWER

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

```
/*
<applet code="TextApplett.class" width="550" height="500">
</applet>
*/

public class TextApplett extends Applet implements MouseListener
    {
            TextField tf;


    public void init()
    {
      tf=new TextField();

    add(tf);

          tf.addMouseListener(this);


    }
             public void mouseEntered(MouseEvent e)
            {
                 tf.setBackground(Color.red);
repaint();
              }
            public void mousePressed(MouseEvent e)
             {
              }
```

```
    public void mouseExited(MouseEvent e)
    {
            }
        public void mouseReleased(MouseEvent e)
         {
           }
        public void mouseClicked(MouseEvent e)
         {
           }


}
```

OUTPUT

6.Create a program to display the selected content of a dropdown list in a textbox

ANSWER

```
import java.applet.Applet; import
java.awt.*; import java.awt.Choice;
import java.awt.Graphics; import
java.awt.event.ItemEvent; import
java.awt.event.ItemListener;

/*
<applet code="EventChoice.class" width=200 height=200>
</applet>
```

```
*/

public class EventChoice extends Applet implements ItemListener{

        Choice language = null;
TextField tb;   public
void init(){


                language = new Choice();



                language.add("Java");
language.add("C++");                language.add("VB");
        language.add("Perl");               tb=new
TextField();            add(language);              add(tb);
                language.addItemListener(this);

        }

        public void paint(Graphics g){

                tb.setText(language.getSelectedItem());
        }

        public void itemStateChanged(ItemEvent arg0) {
                repaint();
        }
```

```
}
```

OUTPUT

7.Create a program to demonstrate scroll bar in applet window

ANSWER

```
import java.awt.*; import
java.applet.*; /*
<APPLET Code="Scroll" Width=500 Height=200>
</APPLET>
*/

public class Scroll extends Applet
{
 Scrollbar bar  =  new Scrollbar(Scrollbar.VERTICAL, 10, 0, 1, 100);

 public void init( )
 {
  add(bar);
 }
}
```

OUTPUT

8.Create a program to display the content of selected radio button in a textbox

ANSWER

```
import java.applet.Applet;
import java.awt.*; import
java.awt.event.*;
/*<applet code="Courses.class" width=300 height=500></applet>*/ public
class Courses extends Applet implements ItemListener
{
  Checkbox mbaBox, btechBox, mcaBox;
  CheckboxGroup cbg;
  TextField tb;
public void init()
 {
   tb=new   TextField(20);              cbg   =   new
CheckboxGroup();                  mbaBox   =   new
Checkbox("MBA", cbg, true);       btechBox = new
Checkbox("B.Tech", cbg, false);     mcaBox = new
Checkbox("MCA", cbg, false);



   mbaBox.addItemListener(this);
btechBox.addItemListener(this);     mcaBox.addItemListener(this);
```

```
    add(mbaBox);
add(btechBox);
add(mcaBox);     add(tb);
  }
  public void itemStateChanged(ItemEvent e)
  {
    String str = "";
if(mbaBox.getState() == true)       str
= "You study MBA.";     else
if(btechBox.getState() == true)       str
= "You study B.Tech.";     else
if(mcaBox.getState() == true)       str
= "You study MCA.";


    tb.setText(str);
  }
 }
```

OUTPUT

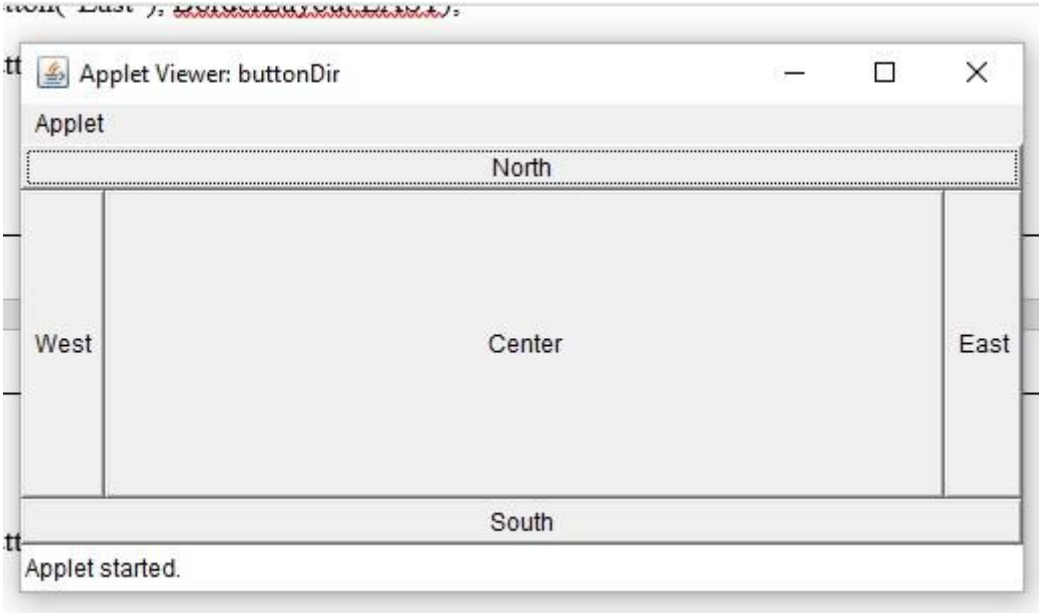
9.Demonstrate Border Layout with a component in each layout area

ANSWER

```
import java.awt.*;  import
java.applet.Applet;

/*
```

```
<APPLET Code="buttonDir" Width=500 Height=200>
</APPLET>
*/
 public class buttonDir extends Applet {     public void
init() {      setLayout(new BorderLayout());      add(new
Button("North"), BorderLayout.NORTH);       add(new
Button("South"), BorderLayout.SOUTH);       add(new
Button("East"),  BorderLayout.EAST);        add(new
Button("West"),  BorderLayout.WEST);        add(new
Button("Center"), BorderLayout.CENTER);
  }
 }
```

OUTPUT



10. Design and Create a notepad application

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

```
import java.io.*;
/*
<applet code="Editor.class" width="550" height="500">
</applet>
*/

public class Editor extends Applet
{
  Frame f;
  MenuBar mb;
  Menu m1,m2,m3,m4,m5;
  MenuItem nw,op,sv,svs,ext,fnd,fndr;
public void  init()
   {
    f=new Frame("Editor");
f.setSize(500,500);
mb=new MenuBar();      m1=new
Menu("File");      nw=new
MenuItem("New");      op=new
MenuItem("Open");      sv=new
MenuItem("Save");      svs=new
MenuItem("Save As");
ext=new MenuItem("Exit");
m2=new Menu("Edit");
fnd=new MenuItem("Find");
fndr=new MenuItem("Find &
Replace");      m3=new
Menu("Format");      m4=new
Menu("View");
    m5=new Menu("Help");

    m1.add(nw);
m1.add(op);       m1.add(sv);
m1.add(svs);
m1.add(ext);
m1.addSeparator();
m2.add(fnd);
m2.add(fndr);
m2.addSeparator();

    mb.add(m1);
mb.add(m2);
mb.add(m3);
```

```
mb.add(m4);
mb.add(m5);
    f.setMenuBar(mb);
    f.setVisible(true);
   }
}
```

OUTPUT