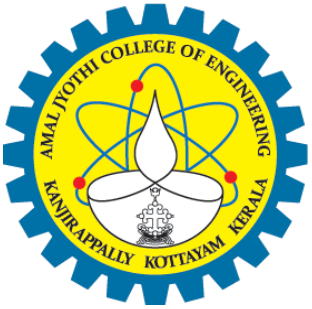

MICRO PROJECT

AWT CONTROL

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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;
TextFiel
d        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.addActionListen
        er(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(130,170,150,8
0);         add(l4);         add(job);
l5=new                      Label();
l5.setBounds(200,300,250,25
0);     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)
   {
```

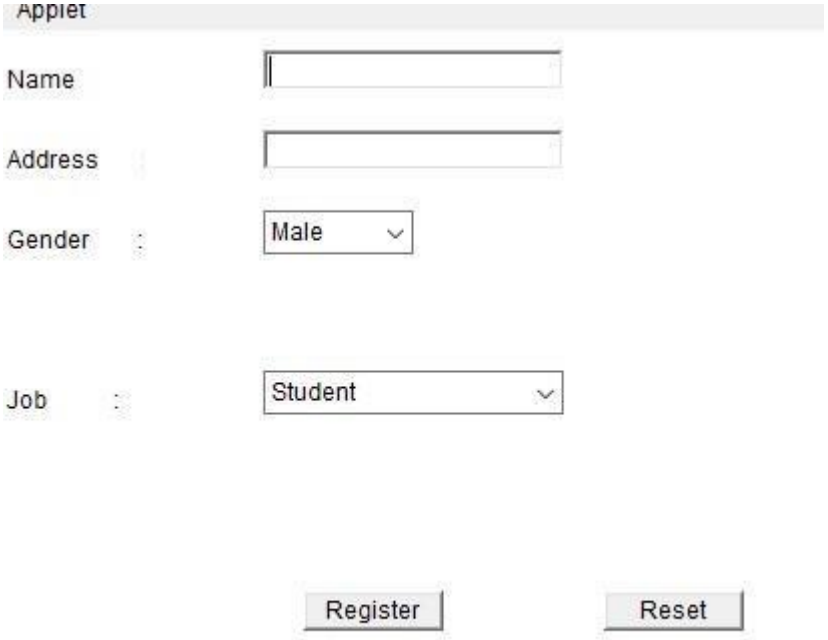
```
        l5.setText("Registration Successful....");
    }});



      }

      }
```

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