1. **Design an applet/application to demonstrate the use of Radio Button and Checkbox.**

Code:

```
import java.awt.*;
import java.util.*;

public class RadioDemo
{
   public static void main( String args[] )
   {
      Frame f = new Frame();
      f.setVisible(true);
      f.setSize(400,400);
      f.setLayout(new FlowLayout());

     Label l1 = new Label("Select Subjects:");

      Checkbox cb1 = new Checkbox("English");
      Checkbox cb2 = new Checkbox("Sanskrit");
      Checkbox cb3 = new Checkbox("Hindi");
      Checkbox cb4 = new Checkbox("Marathi");

      Label l2 = new Label("Select Gender:");
     CheckboxGroup cg = new CheckboxGroup();
      Checkbox c1 = new Checkbox("Male",cg,false);
      Checkbox c2 = new Checkbox("Female",cg,false);

      f.add(l1);
      f.add(cb1);
      f.add(cb2);
      f.add(cb3);
      f.add(cb4);
      f.add(l2);
      f.add(c1);
      f.add(c2);
   }

}
```

2. **. Design an applet/application to create form using Text Field, Text Area, Button and Label.**

Code:

```
import java.awt.*;

public class BasicAWT
{
 public static void main(String args[])
```

```
{
 Frame f = new Frame();
 f.setSize(400,400);
 f.setVisible(true);
 f.setLayout(new FlowLayout() );

 Label l1 = new Label();
 l1.setText("Enter Your Name ");

 TextField tf = new TextField("Atharva");

 Label l2 = new Label("Address");
 TextArea ta = new TextArea("",3,40);

 Button b = new Button("Submit");

 f.add(l1); f.add(tf); f.add(l2); f.add(ta); f.add(b);
 }
}
```

3. **Develop a program to select multiple languages known to user. (e. g Marathi, Hindi, English, Sanskrit).**

   Code:

```
import java.awt.*;
class Lan
{
Lan()
{
Frame f=new Frame();
Label l1=new Label("Select known Languages");
l1.setBounds(100,50,120,80);
f.add(l1);
Checkbox c1=new Checkbox("Marathi");
c1.setBounds(100,90,50,50);
f.add(c1);
Checkbox c2=new Checkbox("Hindi");
c2.setBounds(100,150,50,50);
f.add(c2);
Checkbox c3=new Checkbox("English");
c3.setBounds(100,200,80,50);
f.add(c3);
Checkbox c4=new Checkbox("Sanskrit");
c4.setBounds(100,250,80,50);
f.add(c4);
f.setSize(500,500);
f.setLayout(null);
```

```
f.setVisible(true);
}
public static void  main(String ar[])
{
        new Lan();
}
}
```

4. **Write a program to create three Buttons with Caption OK, RESET and CANCEL.**

Code:

```
import java.awt.*;
class But
{
But()
{
        Frame f=new Frame();
        Button b1=new Button("Ok");
        b1.setBounds(100,50,50,50);
        f.add(b1);
        Button b2=new Button("Reset");
        b2.setBounds(100,101,50,50);
        f.add(b2);
        Button b3=new Button("Cancel");
        b3.setBounds(100,150,80,50);
        f.add(b3);
        f.setSize(500,500);
        f.setLayout(null);
        f.setVisible(true);
}
public static void main(String a[])
{
        new But();
}
}
```

5. **Develop applet / application to select multiple names of news papers.**

Code:

```
/*
<applet code="News" width=300 height=300></applet>
*/
import java.applet.*;
import java.awt.*;
import java.awt.event.*;
public class News extends Applet
{
        public void init()
```

```
        {
                List l1=new List(10,true);
                l1.setBounds(50,60,100,120);
                l1.add("TImes of India");
                l1.add("Cwiedu");
                l1.add("NDTEV");
                l1.add("Gadgets360");
                add(l1);
    setLayout(null);

        }
        public void paint(Graphics g)
        {
                repaint();
        }


}
```

6. Write a program to generate following output:

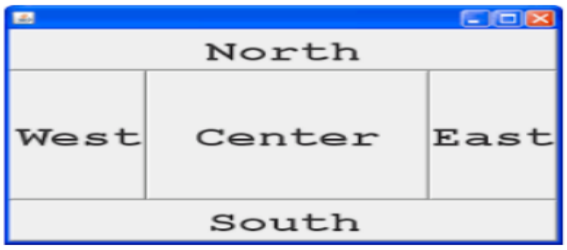
Code:

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

public class button extends Applet
{
public void init()
{
setLayout(new GridLayout(3,2));
for(int i=1;i<=5;i++)
{
Button b=new Button("Button"+i);
add(b);
}
}}
```

```
/*
<applet code="button" width=300 height=300></applet>
*/
```

7. Write a program to generate following output using Border Layout:



Code:

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

public class borderdemo extends Applet
{
public void init()
{
BorderLayout b=new BorderLayout();
setLayout(b);
Label l1=new Label("North",Label.CENTER);
add(l1,BorderLayout.NORTH);

Label l2=new Label("South",Label.CENTER);
add(l2,BorderLayout.SOUTH);

Label l3=new Label("East",Label.CENTER);
add(l3,BorderLayout.EAST);

Label l4=new Label("West",Label.CENTER);
add(l4,BorderLayout.WEST);

Label l5=new Label("Center",Label.CENTER);
add(l5,BorderLayout.CENTER);
}
}

/*
<applet code="borderdemo" width=400 height=400>
</applet>*/
```

8.Write a program which creates Menu of different colors and disable menu item for Black color.

Code:

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

public class menudemo extends Frame
{
public static void main(String args[])
{
menudemo d =new menudemo();
d.setSize(400,400);
d.setTitle("exp 5");
d.setVisible(true);
MenuBar m=new MenuBar();
d.setMenuBar(m);
Menu m1=new Menu("File");
m.add(m1);
MenuItem m2=new MenuItem("Red");
m1.add(m2);
MenuItem m3=new MenuItem("Green");
m1.add(m3);

MenuItem m4=new MenuItem("Black");
m1.add(m4);
m4.setEnabled(false);
}
}
```

9. Write a program to develop a frame to select the different states of India using JComboBox.

Code:

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

public class jcomboboxdemo1 extends JApplet
{
public  void init()
{
Container ct=getContentPane();
ct.setLayout(new FlowLayout());
```

```
JComboBox jc=new JComboBox();
jc.addItem("Maharashtra");
jc.addItem("Karanataka");
jc.addItem("Madhya pradesha");
jc.addItem("Uttarpradesh");
ct.add(jc);
}
}


/*
<applet code="jcomboboxdemo1" width=500 height=500>
</applet>
*/
```

10. Develop a program to demonstrate the use of ScrollPane in Swings.

Code:

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

/*
<applet code="jscrollpane" width=400 height=400>
</applet>*/


public class jscrollpane extends JApplet
{
public void start()
{
Container ct=getContentPane();
String s1="This is text area\n"+"displayed in a scroll pane\n"+"apperas with horizontal
and\n"+"vertical scrollbar";
int h= ScrollPaneConstants.HORIZONTAL_SCROLLBAR_ALWAYS;
int v= ScrollPaneConstants.VERTICAL_SCROLLBAR_ALWAYS;
JTextArea j=new JTextArea(s1);
JScrollPane sp=new JScrollPane(j,v,h);
ct.add(sp);
}
}
```

11. Write a Jtree program to show root directory and its subFolders of your System.

Code:

```
   import javax.swing.*;
import java.awt.*;
import javax.swing.tree.*;
/*
<applet code="jtreedemo" width=500 height=500>
</applet>
*/



public class jtreedemo extends JApplet
{
public void start()
{
Container ct=getContentPane();
ct.setLayout(new BorderLayout());
DefaultMutableTreeNode root=new DefaultMutableTreeNode("D");



DefaultMutableTreeNode a=new DefaultMutableTreeNode("AJP");
root.add(a);
 DefaultMutableTreeNode a1=new DefaultMutableTreeNode("treedemo");
a.add(a1);
JTree tree=new JTree(root);
int v =ScrollPaneConstants.VERTICAL_SCROLLBAR_AS_NEEDED;
int h=ScrollPaneConstants.HORIZONTAL_SCROLLBAR_AS_NEEDED;
JScrollPane jsp=new JScrollPane(tree,v,h);
ct.add(jsp);
}}
```

12. Develop a program to accept two numbers and display product of two numbers when user pressed “Multiply” button.

Code:

```
import java.awt.event.*;
import java.awt.event.ActionListener;
import java.awt.*;
import java.applet.*;
public class multiply extends Applet implements ActionListener
{
Label l1,l2,l3;
TextField t1,t2,t3;
Button b1;
public void init()
{
setLayout(new FlowLayout());
l1=new Label("enter first no:");
l2=new Label("enter second no:");
l3=new Label("Multiplication");
t1=new TextField();
t2=new TextField();
t3=new TextField();
b1=new Button("Multiply");

add(l1);
add(l2);
add(l3);
add(t1);
add(t2);
```

```
add(t3);
add(b1);
b1.addActionListener(this);
}
public void actionPerformed(ActionEvent ae)
{
if(ae.getSource()==b1)
{
int n1=Integer.parseInt(t1.getText());
int n2=Integer.parseInt(t2.getText());
int n3=n1*n2;
t3.setText(Integer.toString(n3));
}
}
}

/*<applet code="multiply" height=400 width=400></applet>*/
```

13.Write a program to change the background color of Applet when user performs events using Mouse.

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

public class MouseColor extends Applet implements MouseMotionListener
{
   public void init()
   {
      addMouseMotionListener(this);
   }
```

```
    public void mouseDragged(MouseEvent me)
    {
        setBackground(Color.red);
        repaint();
    }

    public void mouseMoved(MouseEvent me)
    {
        setBackground(Color.green);
        repaint();
    }

}
/*
    <applet code="MouseColor" width=300 height=300>
    </applet>
*/
```

14.Write a program using JTextField to perform the addition of two numbers.

Code:

```
import java.awt.event.*;
import java.awt.*;
import java.applet.*;
import javax.swing.*;
public class addition extends JApplet implements ActionListener
{
 JLabel l1,l2,l3;
 JTextField t1,t2,t3;
 JButton b1;
 public void init()
 {
```

```
 Container c=getContentPane();
 c.setLayout(new GridLayout(4,2));
 l1=new JLabel("Enter first No.");
 l2=new JLabel("Enter second No.");
 l3=new JLabel("Addition");
 t1=new JTextField();
 t2=new JTextField();
 t3=new JTextField();
 b1=new JButton("Addition");
 c.add(l1);
 c.add(t1);
 c.add(l2);
 c.add(t2);
 c.add(l3);
 c.add(t3);
 c.add(b1);
 b1.addActionListener(this);
 }
 public void actionPerformed(ActionEvent ae)
 {
 if(ae.getSource()==b1)
{
 int n1=Integer.parseInt(t1.getText());
 int n2=Integer.parseInt(t2.getText());
 int n3=n1+n2;
 t3.setText(Integer.toString(n3));
}
 }
}
/*<Applet code=addition.class height=400 width=400></Applet>*/
```

15.Develop a program using InetAddress class to retrieve IP address of computer when hostname is entered by the user.

Code:

```
import java.io.*;
import java.net.*;



public class InetDemo
{
public static void main(String[]args)
{
try
{
InetAddress ip=InetAddress.getByName("localhost");
System.out.println("Host name:"+ip.getHostName());
System.out.println("ip address:"+ip.getHostAddress());
}
catch(Exception e)
{
System.out.println(e);}
}
}
```

16.Write a program using URL class to retrieve the host, protocol, port and file of URL http://www.msbte.org.in.

Code:

```
import java.net.*;


public class URLDemo
{
public static void main(String args[])throws MalformedURLException
```

```
{
URL hp=new URL("http://www.msbte.org.in.");
System.out.println("Protocol:"+hp.getProtocol());
System.out.println("Port:"+hp.getPort());
System.out.println("Host:"+hp.getHost());
System.out.println("File:"+hp.getFile());
}
}
```

17.Develop a java program to insert employee data in the mysql table having two columns “emp_id” and “emp_name”.

Code:

```
package exp18;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;

public class exp18 {


    public static void main(String[] args) {
        Connection conn = null;
        Statement stmt = null;
        try {
          try {
            Class.forName("com.mysql.cj.jdbc.Driver");
          } catch (Exception e) {
            System.out.println(e);
        }
```

```
            conn = (Connection) DriverManager.getConnection("jdbc:mysql://localhost/anuradha",
"root", "root");
            System.out.println("Connection is created successfully:");
            stmt = (Statement) conn.createStatement();
            String query1 = "INSERT INTO Employee  " + "VALUES (1, 'John')";
            ((java.sql.Statement) stmt).executeUpdate(query1);
            query1 = "INSERT INTO Employee  " + "VALUES (2, 'Carol')";
            ((java.sql.Statement) stmt).executeUpdate(query1);
            System.out.println("Record is inserted in the table successfully.....................");
            } catch (SQLException excep) {
              excep.printStackTrace();
            } catch (Exception excep) {
              excep.printStackTrace();
            } finally {
              try {
                if (stmt != null)
                  conn.close();
              } catch (SQLException se) {}
              try {
                if (conn != null)
                  conn.close();
              } catch (SQLException se) {
                se.printStackTrace();
              }
            }
            System.out.println("Please check it in the MySQL Table..... ……..");
}}
```