```
// Addition of two no using swing and Inheritance,  yms, Dated: 20/03/2019
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class MySwing_Add2 extends JFrame
{       JLabel l1,l2,l3,l4;
        JTextField t1,t2;
        JButton b;
        MySwing_Add2()  {   }
   MySwing_Add2(String str)
                        {super(str);}
  public void set_Componet()
    { l1=new JLabel(" The sum of two numbers");
      l2=new JLabel("Enter 1st Number");
      l3=new JLabel("Enter 2nd  Number");
      l4=new JLabel();
      t1=new JTextField();
      t2=new JTextField();
      b=new JButton("ADD");
      setLayout(null);
      l1.setBounds(50,50,200,30);
      l2.setBounds(50,80,100,30);
      t1.setBounds(150,80,100,30);
      l3.setBounds(50,110,100,30);
      t2.setBounds(150,110,100,30);

      b.setBounds (150,140,80,30);
      l4.setBounds(100,200,100,30);
```

```
        b.addActionListener( new MyHandler());
        add(l1);        add(l2);        add(l3);        add(l4);
        add(t1);        add(t2);
        add(b);
       }
 class MyHandler implements ActionListener
   {  //The ActionListener interface gets this ActionEvent when the event occurs
public void actionPerformed(ActionEvent ae)
           {
               int a= Integer.parseInt(t1.getText());
               int b= Integer.parseInt(t2.getText());
               int c=a+b;
                   l4.setText("Sum is :"+c);
           }
   }
 public static void main(String arg[])
     {  MySwing_Add2 ms=new MySwing_Add2("MY Swing2 for add");
        ms.set_Componet();
        ms.setVisible(true);
        ms.setSize(500,500);
        ms.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        Color c= new Color(155,100,200);
        ms.getContentPane().setBackground(c);
       }
}
```

```
// add and sub using Inheritance  and Java Swing
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class MySwingAddSub extends JFrame
{       JLabel l1,l2,l3;
        JTextField t1,t2,t3;
        JButton b1,b2;
     public void set_Componet()
     {
        l1=new JLabel(" Simple Calculator");
        l2=new JLabel("Enter 1st integer Number");
        l3=new JLabel("Enter 2nd integer Number");
        t1=new JTextField();
        t2=new JTextField();
        t3=new JTextField();
        b1=new JButton(" ADD");
        b2=new JButton(" SUB");
        setLayout(null);
        l1.setBounds(100,50,200,30);
        l2.setBounds(50,80,200,30);
        t1.setBounds(250,80,200,30);
        l3.setBounds(50,110,200,30);
        t2.setBounds(250,110,200,30);
        b1.setBounds (150,140,100,30);
        b2.setBounds (150,170,100,30);
        t3.setBounds(100,220,200,30);
        b1.addActionListener( new Handler_Airthm());
```

```
        b2.addActionListener( new Handler_Airthm());


        add(l1);          add(l2);         add(l3);
        add(t1);          add(t2);  add(t3);
        add(b1);    add(b2);
       }
  class Handler_Airthm implements ActionListener
   {   public void actionPerformed(ActionEvent ae)
         {        int a= Integer.parseInt(t1.getText());
                  int b= Integer.parseInt(t2.getText());
                   int temp;

                  if(ae.getSource()==b1)
                    {
                      temp=a+b;
                      t3.setText(temp+"  is the sum of 2 Nos :");
                    }
                  if(ae.getSource()==b2)
                     {
                       temp=a-b;
                       t3.setText(temp+" is the sub of 2 Nos :");
                     }
          }
   }
  public static void main(String arg[])
     {  JFrame jf=new JFrame("To Add & SUB");
        MySwingAddSub ms=new MySwingAddSub();
        ms.set_Componet();
```

```
        ms.setVisible(true);
        ms.setSize(500,500);
        ms.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        Color c= new Color(0,140,245);
        ms.getContentPane().setBackground(c);
       ms.getContentPane().setForeground(c);
      }
}
```

// Reverse of Digits using Inheritance and Java Swing

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class MySwing_ROD extends JFrame
{       JLabel l1,l2,l3,l4;
       JTextField t1,t2;
       JButton b;
    public void set_Componet()
    {
       l1=new JLabel(" REVERSE of digits");
       l2=new JLabel("Enter any integer Number");

       l3=new JLabel();
       t1=new JTextField();

       b=new JButton(" Find SUM of Digits");
       setLayout(null);
       l1.setBounds(50,50,200,30);
       l2.setBounds(50,80,100,30);
```

```
        t1.setBounds(150,80,100,30);
        b.setBounds (150,140,80,30);
        l3.setBounds(100,200,200,30);
        b.addActionListener( new Handler4());
        add(l1);        add(l2);        add(l3);
        add(t1);
        add(b);
       }
class Handler4 implements ActionListener
  {   public void actionPerformed(ActionEvent ae)
          { int rod=0,rem;
           int n= Integer.parseInt(t1.getText());
           while(n>0)
                { rem=n%10;
                  rod=rod*10+rem;
                  n=n/10;
                }
           l3.setText("Reverse  of digits is :"+rod);
          }
  }
public static void main(String arg[])
    {  JFrame jf=new JFrame("To find sum of digits");
       MySwing_ROD ms=new MySwing_ROD();
       ms.set_Componet();
       ms.setVisible(true);
       ms.setSize(500,500);
       ms.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
       Color c= new Color(255,200,100);
```

```
        ms.getContentPane().setBackground(c);
      }
}
```

// Sum of Digits using Inheritance and Java Swing

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class MySwing_SOD extends JFrame
{       JLabel l1,l2,l3,l4;
        JTextField t1,t2;
        JButton b;
    public void set_Componet()
    {
       l1=new JLabel(" The sum of digits");
       l2=new JLabel("Enter any integer Number");

       l3=new JLabel();
       t1=new JTextField();

       b=new JButton(" Find SUM of Digits");
       setLayout(null);
       l1.setBounds(50,50,200,30);
       l2.setBounds(50,80,100,30);
       t1.setBounds(150,80,100,30);
       b.setBounds (150,140,80,30);
       l3.setBounds(100,200,200,30);
       b.addActionListener( new Handler3());
       add(l1);        add(l2);        add(l3);
```

```
        add(t1);
        add(b);
       }
  class Handler3 implements ActionListener
   {   public void actionPerformed(ActionEvent ae)
          { int sod=0,rem;
           int n= Integer.parseInt(t1.getText());
           while(n>0)
                { rem=n%10;
                  sod=sod+rem;
                  n=n/10;
                }
           l3.setText("Sum of digits is :"+sod);
          }
    }
  public static void main(String arg[])
     {  JFrame jf=new JFrame("To find sum of digits");
        MySwing_SOD ms=new MySwing_SOD();
        ms.set_Componet();
        ms.setVisible(true);
        ms.setSize(500,500);
        Color c= new Color(255,250,160);
        ms.getContentPane().setBackground(c);
   ms.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
       }
}
```

```
// using Inheritance method setting RGB color of buttons
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
class MySwingRGB extends JFrame
  {   JButton b1,b2,b3;
       Container c;
      public void set_Componet()
      {
       c=this.getContentPane();
      c.setBackground(Color.YELLOW);
      b1=new JButton(" RED");
      b2=new JButton(" GREEN");
      b3=new JButton(" BLUE");
      setLayout(null);
      b1.setBounds(100,50,100,30);
      b2.setBounds(100,100,100,30);
      b3.setBounds (110,150,100,30);
      b1.addActionListener( new Handler_RGB());
      b2.addActionListener(new Handler_RGB());
      b3.addActionListener( new Handler_RGB());
      c.add(b1);   c.add(b2);     c.add(b3);
      }
 class Handler_RGB implements ActionListener
  {   public void actionPerformed(ActionEvent ae)
                {
                   if(ae.getSource()==b1)
                  {
```

```
                    c.setBackground(Color.RED);


                }
            if(ae.getSource()==b2)
                {
                    c.setBackground(Color.GREEN);
                }
            if(ae.getSource()==b3)
                {
                    c.setBackground(Color.BLUE);
                }
        }
    }
  public static void main(String arg[])
    {
      JFrame jf=new JFrame(" RGB color");
      MySwingRGB ms=new MySwingRGB();
      ms.set_Componet();
      ms.setVisible(true);
      ms.setSize(500,500);
      ms.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
     }
}
                //For Image Icon
import java.awt.*;
import javax.swing.*;
class MyImage_Icon
{
```

```
  public static void main(String arg[])
      {
      JFrame jf=new JFrame();
      JButton b=new JButton("ok");
      jf.add(b);
      jf.setVisible(true);
      jf.setSize(300,300);
      jf.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      ImageIcon ic=new ImageIcon("D:/YMS/java_program/logo_0.png");
      jf.setIconImage(ic.getImage());

     Container c=jf.getContentPane();
       c.setBackground(Color.RED);
      }
}
```

// Program for GridLayout

```
import java.awt.*;  import javax.swing.*;
public class MyGridLayout{  JFrame f;
MyGridLayout(){
f=new JFrame();

JButton b1=new JButton("1");  JButton b2=new JButton("2");  JButton b3=new
JButton("3");  JButton b4=new JButton("4");  JButton b5=new JButton("5");
JButton b6=new JButton("6");  JButton b7=new JButton("7");
JButton b8=new JButton("8");  JButton b9=new JButton("9");



f.add(b1);f.add(b2);f.add(b3);f.add(b4);f.add(b5);
```

```
f.add(b6);f.add(b7);f.add(b8);f.add(b9);



f.setLayout(new GridLayout(3,3));
//setting grid layout of 3 rows and 3 columns

f.setSize(500,500);  f.setVisible(true);
f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

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

// Program for designing Panel

```
import javax.swing.*;
import java.awt.*;
class MyJPanel
{
  public static void main(String arg[])
      {
      JFrame jf=new JFrame("MY JPanel");
      jf.setLayout(null);
      jf.setVisible(true);
      jf.setSize(500,500);
      jf.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
        Container c= jf.getContentPane();
        c.setLayout(null);
        c.setBackground(Color.BLUE);

       JPanel jp=new JPanel();
        jp.setLayout(null);
        jp.setBackground(Color.YELLOW);
        jp.setBounds(100,200,200,250);

        JButton b=new JButton("Submit");
        b.setBounds(50,100,100,30);
        b.setBackground(Color.RED);
        jp.add(b);
        c.add(jp);
        }
}
```

// To find Factorial using Swing and Inheritance

```
import javax.swing.*;
import java.awt.event.*;
import java.awt.*;
class MySwing_Fact extends JFrame
{       JLabel l1,l2,l3;
        JTextField t1,t2;
        JButton b;
       Container c;
        MySwing_Fact()  {   }
    MySwing_Fact(String str)
                        {super(str);
```

```
        }
 public void set_Componet()
  {    c=this.getContentPane();
       c.setBackground(Color.PINK);

     l1=new JLabel(" FACTORIAL of a number");
     l2=new JLabel("Enter any integer Number");
     l1.setForeground(Color.RED);
     l3=new JLabel();
     t1=new JTextField();

     b=new JButton(" Find Factorial");
     setLayout(null);
     l1.setBounds(50,50,200,30);
     l2.setBounds(50,80,100,30);
     t1.setBounds(150,80,100,30);
     b.setBounds (150,140,150,30);
     l3.setBounds(100,200,100,30);
     b.addActionListener( new Handler2());
     add(l1);        add(l2);          add(l3);
     add(t1);
     add(b);
    }
class Handler2 implements ActionListener
  {   public void actionPerformed(ActionEvent ae)
        { int f=1,i;
          int n= Integer.parseInt(t1.getText());
          for(i=1;i<=n;i++)
```

```
                f=f*i;
            l3.setText("Factorial :"+f);
           }
    }
  public static void main(String arg[])
     {  MySwing_Fact ms=new MySwing_Fact("Fatorial value");
        ms.set_Componet();
        ms.setVisible(true);
        ms.setSize(500,500);
        ms.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      }
}
// Program to design Box Layout
import javax.swing.*;
import java.awt.*;
class MyBoxLayout2 extends JFrame
{
        JButton b1,b2,b3,b4,b5;
        JPanel jp;
   MyBoxLayout2()
      {
      setTitle("YMS  BoxLayout ");
      setVisible(true);
      setSize(500,500);
      setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
      jp=new JPanel();
      setContentPane(jp);
      jp.setLayout(new BoxLayout(jp,BoxLayout.X_AXIS));
```

```
    b1=new JButton("button1");
    b2=new JButton("button1");
    b3=new JButton("button1");
    b4=new JButton("button1");
    b5=new JButton("button1");
    add(b1);add(b2);add(b3);add(b4);add(b5);
   }
public static void main(String arg[])
    {  new MyBoxLayout2();       } }
```