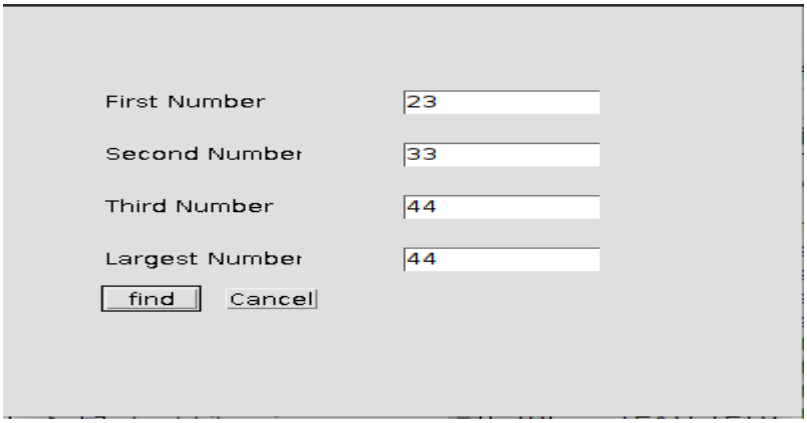
AwtbiggestCourse Outcome 5 (CO5):

1.Program to find a maximum of three numbers using AWT.

```
package awtbiggest;
import java.awt.*;
import java.awt.event.*;
 public class Awtbiggest implements ActionListener{
    Frame f=new Frame();
Label l1=new Label("First Number");
Label l2=new Label("Second Number");
Label l3=new Label("Third Number");
Label l4=new Label("Largest Number");
TextField t1=new TextField();
TextField t2=new TextField();
TextField t3=new TextField();
TextField t4=new TextField();

Button b1=new Button("find");
Button b2=new Button("Cancel");


Awtbiggest()
{
l1.setBounds(50,100,100,20);
l2.setBounds(50,140,100,20);
l3.setBounds(50,180,100,20);
l4.setBounds(50,220,100,20);
t1.setBounds(200,100,100,20);
t2.setBounds(200,140,100,20);
t3.setBounds(200,180,100,20);
t4.setBounds(200,220,100,20);
b1.setBounds(50,250,50,20);
b2.setBounds(110,250,50,20);


f.add(l1);
f.add(l2);
f.add(l3);
f.add(l4);
f.add(t1);
f.add(t2);
f.add(t3);
f.add(t4);
f.add(b1);
f.add(b2);

b1.addActionListener(this);
b2.addActionListener(this);

f.setLayout(null);
f.setVisible(true);
```

```
f.setSize(400,350);

}

public void actionPerformed(ActionEvent e)
{
  int n1=Integer.parseInt(t1.getText());
  int n2=Integer.parseInt(t2.getText());
  int n3=Integer.parseInt(t3.getText());
if(e.getSource()==b1)
{
    if(n1>n2){
        if(n1>n3){
            t4.setText(String.valueOf(n1));

        }
    }
    else if(n2>n3){
         t4.setText(String.valueOf(n2));
    }
    else{
        t4.setText(String.valueOf(n3));
    }

}

if(e.getSource()==b2)
{
System.exit(0);
}
}

    public static void main(String[] args) {

        new Awtbiggest();

    }

}
```

output:

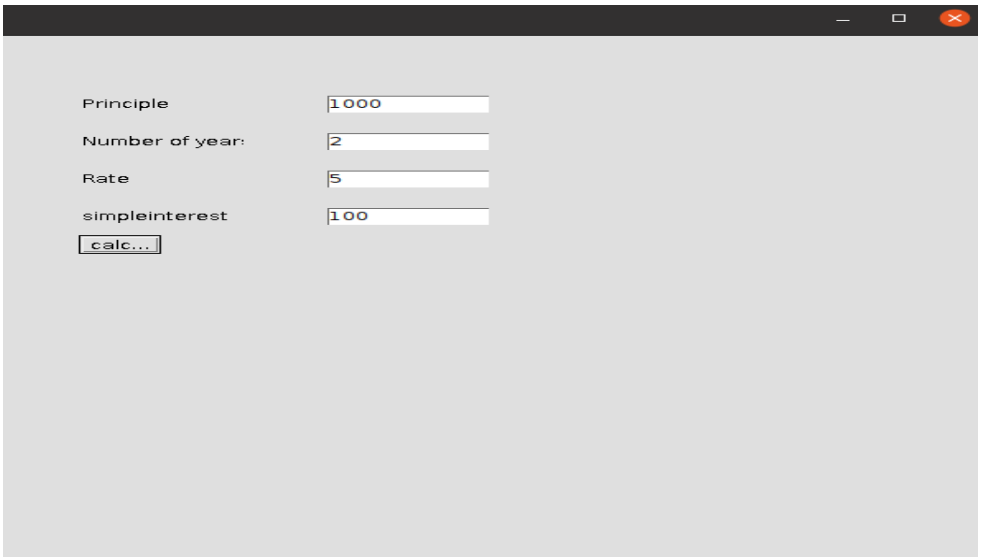


simple interest

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

/**
 *
 * @author sjcet
 */
public class Simpleinterest implements ActionListener{
    Frame f=new Frame();
    Label l1=new Label("Principle");
    Label l2=new Label("Number of years");
    Label l3=new Label ("Rate");
    Label l4=new Label("simpleinterest");
    TextField t1= new TextField();
    TextField t2=new TextField();
    TextField t3=new TextField();
    TextField t4=new TextField();
    Button b1= new Button("calculate");
    Simpleinterest()
    {
        l1.setBounds(50, 100, 100, 20);
        l2.setBounds(50, 140, 100, 20);
        l3.setBounds(50, 180, 100, 20);
        l4.setBounds(50, 220, 100, 20);
        t1.setBounds(200,100 , 100, 20);
        t2.setBounds(200, 140, 100, 20);
        t3.setBounds(200, 180, 100, 20);
        t4.setBounds(200, 220, 100, 20);
        b1.setBounds(50, 250, 50, 20);
        f.add(l1);
        f.add(l2);
        f.add(l3);
```

```
        f.add(l4);
        f.add(t1);
        f.add(t2);
        f.add(t3);
        f.add(t4);
        f.add(b1);
        b1.addActionListener(this);
        f.setLayout(null);
        f.setVisible(true);
        f.setSize(600, 600);
    }
    public void actionPerformed(ActionEvent e)
    {

        int n1=Integer.parseInt(t1.getText());
        int n2=Integer.parseInt(t2.getText());
        int n3=Integer.parseInt(t3.getText());
        if(e.getSource()==b1)
        {

            t4.setText(String.valueOf((n1*n2*n3)/100));
        }

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

}
```

output:

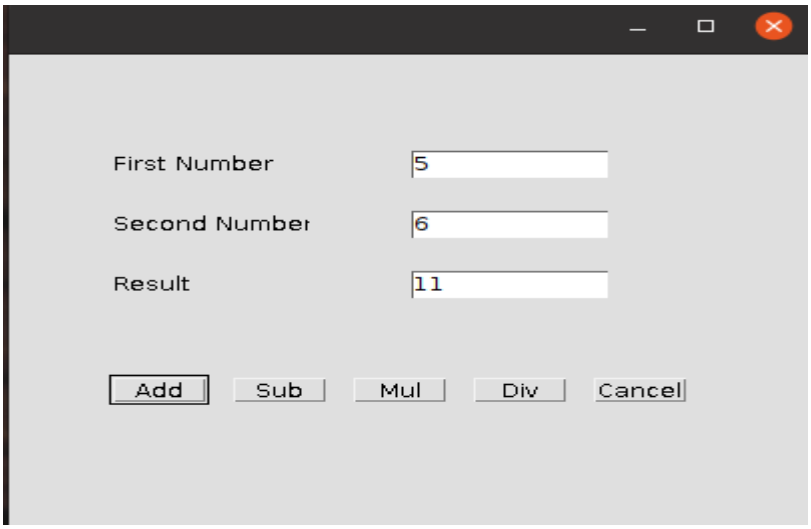


2.Implement a simple calculator using AWT components.

```
package awtcalculator;

/**
 *
 * @author sjcet
 */
import java.awt.*;
import java.awt.event.*;

class Awtcalculator implements ActionListener {


    //Declaring Objects
Frame f=new Frame();
Label l1=new Label("First Number");
Label l2=new Label("Second Number");
Label l3=new Label("Result");
TextField t1=new TextField();
TextField t2=new TextField();
TextField t3=new TextField();
Button b1=new Button("Add");
Button b2=new Button("Sub");
Button b3=new Button("Mul");
Button b4=new Button("Div");
Button b5=new Button("Cancel");

Awtcalculator()
{
l1.setBounds(50,100,100,20);
l2.setBounds(50,140,100,20);
l3.setBounds(50,180,100,20);
t1.setBounds(200,100,100,20);
t2.setBounds(200,140,100,20);
t3.setBounds(200,180,100,20);
b1.setBounds(50,250,50,20);
b2.setBounds(110,250,50,20);
b3.setBounds(170,250,50,20);
b4.setBounds(230,250,50,20);
b5.setBounds(290,250,50,20);

f.add(l1);
f.add(l2);
f.add(l3);
f.add(t1);
f.add(t2);
f.add(t3);
f.add(b1);
f.add(b2);
f.add(b3);
f.add(b4);
```

```
f.add(b5);
b1.addActionListener(this);
b2.addActionListener(this);
b3.addActionListener(this);
b4.addActionListener(this);
b5.addActionListener(this);
f.setLayout(null);
f.setVisible(true);
f.setSize(400,350);

}

public void actionPerformed(ActionEvent e)
{
  int n1=Integer.parseInt(t1.getText());
  int n2=Integer.parseInt(t2.getText());
if(e.getSource()==b1)
{
t3.setText(String.valueOf(n1+n2));
}
if(e.getSource()==b2)
{
t3.setText(String.valueOf(n1-n2));
}
if(e.getSource()==b3)
{
t3.setText(String.valueOf(n1*n2));
}
if(e.getSource()==b4)
{
t3.setText(String.valueOf(n1/n2));
}
if(e.getSource()==b5)
{
System.exit(0);
}
}
    public static void main(String[] args) {

        new Awtcalculator();
    }
}
```

output:



3. Develop a program to handle all mouse events and window events

```
package mouseevents;

/**
 *
 * @author sjcet
 */
import java.awt.*;
import java.awt.event.*;

public class Mouseevents extends Frame implements MouseListener {

     Label l;
   Mouseevents(){
      addMouseListener(this);

      l=new Label();
      l.setBounds(20,50,100,20);
      add(l);
      setSize(300,300);
      setLayout(null);
      setVisible(true);
   }
   public void mouseClicked(MouseEvent e) {
      l.setText("Mouse Clicked");
   }
   public void mouseEntered(MouseEvent e) {
      l.setText("Mouse Entered");
   }
   public void mouseExited(MouseEvent e) {
      l.setText("Mouse Exited");
   }
   public void mousePressed(MouseEvent e) {
```

```
        l.setText("Mouse Pressed");
    }
    public void mouseReleased(MouseEvent e) {
        l.setText("Mouse Released voi");
    }

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

}
```

output:

4. Develop a program to handle Key events.

```
package keyevents;

/**
* @author sjcet
 */
import java.awt.*;
import java.awt.event.*;

public class Keyevents extends Frame implements KeyListener {


 Label l;
    TextArea area;

    Keyevents() {

        l = new Label();

        l.setBounds (20, 50, 100, 20);

        area = new TextArea();

        area.setBounds (20, 80, 300, 300);
```

```
        area.addKeyListener(this);

        add(l);
add(area);

        setSize (400, 400);
        setLayout (null);
        setVisible (true);
    }
    public void keyPressed (KeyEvent e) {
        l.setText ("Key Pressed");
    }
    public void keyReleased (KeyEvent e) {
        l.setText ("Key Released");
    }
    public void keyTyped (KeyEvent e) {
        l.setText ("Key Typed");    class MyException extends Exception
{
 public MyException(String str)
 {
  System.out.println(str);
 }
}class MyException extends Exception
{
 public MyException(String str)
 {
  System.out.println(str);
 }
}class MyException extends Exception
{
 public MyException(String str)
 {
  System.out.println(str);
 }
}
    }

    public static void main(String[] args)
 {
      new Keyevents();

}
```

output: