Source Code:

```
import javax.swing.*;
import java.awt.event.*;
class Calculator extends JFrame implements ActionListener
{
	private JTextField t1;private JButton b1;private JButton b2;private JButton b3;private JButton b4;
	private JButton b5;private JButton b6;private JButton b7;private JButton b8;private JButton b9;
	private JButton b10;private JButton b11;private JButton b12;private JButton b13;private JButton b14;
	private JButton b15;private JButton b16;private JButton b17;private Integer res;private String operation;
	public Calculator()
	{
		setLayout(null);setSize(680,480);t1 = new JTextField();t1.setBounds(100,100,200,30);
		b1 = new JButton("1");b1.setBounds(100,140,50,30);
		b2 = new JButton("2");b2.setBounds(150,140,50,30);
		b3 = new JButton("3");b3.setBounds(200,140,50,30);
		b4 = new JButton("+");b4.setBounds(250,140,50,30);
		// Third Row
		b5 = new JButton("4");b5.setBounds(100,170,50,30);
		b6 = new JButton("5");b6.setBounds(150,170,50,30);
		b7 = new JButton("6");b7.setBounds(200,170,50,30);
		b8 = new JButton("-");b8.setBounds(250,170,50,30);
		// Fourth Row
		b9 = new JButton("7");b9.setBounds(100,200,50,30);
		b10 = new JButton("8");b10.setBounds(150,200,50,30);
		b11 = new JButton("9");b11.setBounds(200,200,50,30);
		b12 = new JButton("*");b12.setBounds(250,200,50,30);
		// Fourth Row
		b13 = new JButton("/");b13.setBounds(100,230,50,30);
		b14 = new JButton("%");b14.setBounds(150,230,50,30);
		b15 = new JButton("=");b15.setBounds(200,230,50,30);
		b16 = new JButton("C");b16.setBounds(250,230,50,30);
		b17 = new JButton("0");b17.setBounds(100,260,50,30);
		add(t1);add(b1);add(b2);add(b3);add(b4);add(b5);add(b6);add(b7);add(b8);
		add(b9);add(b10);add(b11);add(b12);add(b13);add(b14);add(b15);add(b16);add(b17);
		b1.addActionListener(this);b2.addActionListener(this);.addActionListener(this);
		b4.addActionListener(this);b5.addActionListener(this);b6.addActionListener(this);
		b7.addActionListener(this);b8.addActionListener(this); b9.addActionListener(this);
		b10.addActionListener(this);b11.addActionListener(this);b12.addActionListener(this);
		b13.addActionListener(this);b14.addActionListener(this);b15.addActionListener(this);
		b16.addActionListener(this);b17.addActionListener(this);
	}
	public void doAction(String op)
	{
		String out ="";
		if(operation==null)
		{
			operation = op;
			res=Integer.parseInt(t1.getText());
			t1.setText("");
		}
```

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else
{
	switch(operation)
	{
		case "+":
			out += res.toString() + "+" + t1.getText();
			res=res+Integer.parseInt(t1.getText());
			break;
		case "-":
			out += res.toString() + "-" + t1.getText();
			res=res-Integer.parseInt(t1.getText());
			break;
		case "/":
			try
			{
				if(t1.getText().equals("0"))
				{
					throw new ArithmeticException("Divide By zero");
				}
				out += res.toString() + "/" + t1.getText();
				res = res/Integer.parseInt(t1.getText());
			}
			catch(ArithmeticException e)
			{
					t1.setText(e.getMessage());
					operation = null;
					res = 0;
			}
			break;
		case "*":
			out += res.toString() + "*" + t1.getText();
			res=res*Integer.parseInt(t1.getText());
			break;
		case "%":
			out += res.toString() + "%" + t1.getText();
			res=res%Integer.parseInt(t1.getText());
			break;
	}
	if(op.equals("="))
	{
		out += "=" + res.toString();
		t1.setText(out);
		res = 0;
		operation = null;
	}
```

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                }
                else
                {
                        operation = op;
                        t1.setText("");
                }
        }
}
public void actionPerformed(ActionEvent e)
{
        if(e.getSource() == b1)
                t1.setText(t1.getText()+"1");
        else if(e.getSource() == b2)
                t1.setText(t1.getText()+"2");
        else if(e.getSource() == b3)
                t1.setText(t1.getText()+"3");
        else if(e.getSource() == b5)
                t1.setText(t1.getText()+"4");
        else if(e.getSource() == b6)
                t1.setText(t1.getText()+"5");
        else if(e.getSource() == b7)
                t1.setText(t1.getText()+"6");
        else if(e.getSource() == b9)
                t1.setText(t1.getText()+"7");
        else if(e.getSource() == b10)
                t1.setText(t1.getText()+"8");
        else if(e.getSource() == b11)
                t1.setText(t1.getText()+"9");
        else if(e.getSource() == b17)
                t1.setText(t1.getText()+"0");
        else if(e.getSource() == b16)
        {
                t1.setText("");
                res=0;
                operation=null;
        }
        else if(e.getSource() == b4)
                doAction("+");
        else if(e.getSource() == b8)
                doAction("-");
        else if(e.getSource() == b12)
                doAction("*");
        else if(e.getSource() == b13)
                doAction("/");
        else if(e.getSource() == b14)
                doAction("%");
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                else if(e.getSource() == b15)
                        doAction("=");
        }
        public static void main(String [] args){
                        new Calculator().setVisible(true);
        }
}
```

Output: