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

public class Calculator implements ActionListener{

	JFrame frame;
	JTextField textfield;
	JButton[] numberButtons = new JButton[10];
	JButton[] functionButtons = new JButton[9];
	JButton addButton,subButton,mulButton,divButton;
	JButton decButton, equButton, delButton, clrButton, negButton;
	JPanel panel;

	Font myFont = new Font("Dialog",Font.BOLD,30);

	double num1=0,num2=0,result=0;
	char operator;

	Calculator(){

		frame = new JFrame("Calculator");
		frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
		frame.setSize(420, 550);
		frame.setLayout(null);

		textfield = new JTextField();
		textfield.setBounds(50, 25, 300, 50);
		textfield.setFont(myFont);
```

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textfield.setEditable(false);

addButton = new JButton("+");
subButton = new JButton("-");
mulButton = new JButton("*");
divButton = new JButton("/");
decButton = new JButton(".");
equButton = new JButton("=");
delButton = new JButton("Del");
clrButton = new JButton("Clr");
negButton = new JButton("(-)");

functionButtons[0] = addButton;
functionButtons[1] = subButton;
functionButtons[2] = mulButton;
functionButtons[3] = divButton;
functionButtons[4] = decButton;
functionButtons[5] = equButton;
functionButtons[6] = delButton;
functionButtons[7] = clrButton;
functionButtons[8] = negButton;

for(int i =0;i<9;i++) {
        functionButtons[i].addActionListener(this);
        functionButtons[i].setFont(myFont);
        functionButtons[i].setFocusable(false);
}

for(int i =0;i<10;i++) {
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            numberButtons[i] = new JButton(String.valueOf(i));
            numberButtons[i].addActionListener(this);
            numberButtons[i].setFont(myFont);
            numberButtons[i].setFocusable(false);
}

negButton.setBounds(50,430,100,50);
delButton.setBounds(150,430,100,50);
clrButton.setBounds(250,430,100,50);

panel = new JPanel();
panel.setBounds(50, 100, 300, 300);
panel.setLayout(new GridLayout(4,4,10,10));

panel.add(numberButtons[1]);
panel.add(numberButtons[2]);
panel.add(numberButtons[3]);
panel.add(addButton);
panel.add(numberButtons[4]);
panel.add(numberButtons[5]);
panel.add(numberButtons[6]);
panel.add(subButton);
panel.add(numberButtons[7]);
panel.add(numberButtons[8]);
panel.add(numberButtons[9]);
panel.add(mulButton);
panel.add(decButton);
panel.add(numberButtons[0]);
panel.add(equButton);
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        panel.add(divButton);


        frame.add(panel);
        frame.add(negButton);
        frame.add(delButton);
        frame.add(clrButton);
        frame.add(textfield);
        frame.setVisible(true);
}

public static void main(String[] args) {


        Calculator calc = new Calculator();
}


@Override
public void actionPerformed(ActionEvent e) {


        for(int i=0;i<10;i++) {
                if(e.getSource() == numberButtons[i]) {
                        textfield.setText(textfield.getText().concat(String.valueOf(i)));
                }
        }
        if(e.getSource()==decButton) {
                textfield.setText(textfield.getText().concat("."));
        }
        if(e.getSource()==addButton) {
                num1 = Double.parseDouble(textfield.getText());
                operator ='+';
```

```
            textfield.setText("");
        }
        if(e.getSource()==subButton) {
            num1 = Double.parseDouble(textfield.getText());
            operator ='-';
            textfield.setText("");
        }
        if(e.getSource()==mulButton) {
            num1 = Double.parseDouble(textfield.getText());
            operator ='*';
            textfield.setText("");
        }
        if(e.getSource()==divButton) {
            num1 = Double.parseDouble(textfield.getText());
            operator ='/';
            textfield.setText("");
        }
        if(e.getSource()==equButton) {
            num2=Double.parseDouble(textfield.getText());

            switch(operator) {
            case'+':
                result=num1+num2;
                break;
            case'-':
                result=num1-num2;
                break;
            case'*':
                result=num1*num2;
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                    break;
                case'/':
                    result=num1/num2;
                    break;
                }
                textfield.setText(String.valueOf(result));
                num1=result;
            }
            if(e.getSource()==clrButton) {
                textfield.setText("");
            }
            if(e.getSource()==delButton) {
                String string = textfield.getText();
                textfield.setText("");
                for(int i=0;i<string.length()-1;i++) {
                    textfield.setText(textfield.getText()+string.charAt(i));
                }
            }
            if(e.getSource()==negButton) {
                double temp = Double.parseDouble(textfield.getText());
                temp*=-1;
                textfield.setText(String.valueOf(temp));
            }
        }
}
```