

PROGRAM

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

public class Calculator implements ActionListener{
    JFrame frame;
    JTextField textField;
    JButton[] numberButtons= new JButton[10];
    JButton[] functionButton=new JButton[8];
    JButton addButton,subButton,mulButton,divButton;
    JButton decButton,equButton,delButton,clrButton;
    JPanel panel;
    double num1=0,num2=0,result=0;
    char operator;

    Calculator(){
        Font myFont = new Font("Ink Free",Font.BOLD,35);
        frame =new JFrame("CALCULATOR");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setBounds(500,150,420,550);
        frame.setLayout(null);
        frame.getContentPane().setBackground(new Color(147, 161, 96));
        textField = new JTextField();
        textField.setBounds(50,25,300,50);
        textField.setFont(myFont);
        textField.setEditable(false);

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

        functionButton[0] =addButton;
        functionButton[1] =subButton;
        functionButton[2] =mulButton;
        functionButton[3] =divButton;
        functionButton[4] =decButton;
        functionButton[5] =equButton;
        functionButton[6] =delButton;
        functionButton[7] =clrButton;
        for(int i=0;i<8;i++){
            functionButton[i].addActionListener(this);
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        functionButton[i].setFont(myFont);
        functionButton[i].setFocusable(false);
    }
    for(int i=0;i<10;i++){
        numberButtons[i] =new JButton(""+i);
        numberButtons[i].addActionListener(this);
        numberButtons[i].setFont(myFont);
        numberButtons[i].setFocusable(false);
    }
    delButton.setBounds(50,430,145,50);
    clrButton.setBounds(205,430,145,50);
    panel =new JPanel();
    panel.setBounds(50,100,300,300);
    panel.setLayout(new GridLayout(4,4,10,10));
    panel.add(numberButtons[7]);
    panel.add(numberButtons[8]);
    panel.add(numberButtons[9]);
    panel.add(addButton);

    panel.add(numberButtons[4]);
    panel.add(numberButtons[5]);
    panel.add(numberButtons[6]);
    panel.add(subButton);

    panel.add(numberButtons[1]);
    panel.add(numberButtons[2]);
    panel.add(numberButtons[3]);
    panel.add(mulButton);

    panel.add(decButton);
    panel.add(numberButtons[0]);
    panel.add(equButton);
    panel.add(divButton);

    frame.add(panel);
    frame.add(delButton);
    frame.add(clrButton);
    frame.add(textField);
    frame.setResizable(false);
    frame.setVisible(true);
}

public static void main(String argd[]){
    Calculator calc =new Calculator();
}
public void actionPerformed(ActionEvent e){
    for(int i=0;i<10;i++)
        if(e.getSource()==numberButtons[i])

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        textField.setText(textField.getText() + i);

if(e.getSource()==clrButton)
    textField.setText("");

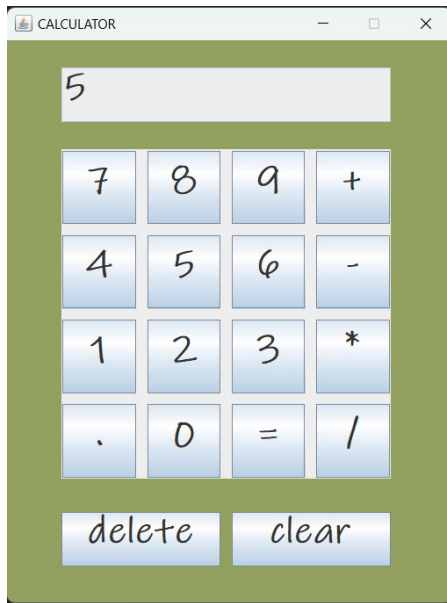
if(e.getSource()==decButton)
    textField.setText(textField.getText() + ".");

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;break;
        case '/':result=num1/num2;break;
    }
    textField.setText(""+result);
    num1=result;
}
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));
}

}
}

```

OUTPUT



$$5 + 5 = 10.0$$

$$25 / 2 = 12.5$$

$$50 * 4 = 200.0$$

$$12 - 3 = 9.0$$

$$12.1 - .1 = 12.0$$