import java.awt.\*;

import java.awt.event.\*;

public class SimpleCalculator extends Frame implements AcƟonListener {

TextField ƞ;

BuƩon b1, b2, b3, b4, b5, b6, b7, b8, b9, b0, bAdd, bSub, bMul, bDiv, bEq, bClr;

SimpleCalculator() {

ƞ = new TextField();

b1 = new BuƩon("1");

b2 = new BuƩon("2");

b3 = new BuƩon("3");

b4 = new BuƩon("4");

b5 = new BuƩon("5");

b6 = new BuƩon("6");

b7 = new BuƩon("7");

b8 = new BuƩon("8");

b9 = new BuƩon("9");

b0 = new BuƩon("0");

bAdd = new BuƩon("+");

bSub = new BuƩon("-");

bMul = new BuƩon("\*");

bDiv = new BuƩon("/");

bEq = new BuƩon("=");

bClr = new BuƩon("C");

ƞ.setBounds(50, 50, 150, 20);

b1.setBounds(50, 100, 30, 30);

b2.setBounds(90, 100, 30, 30);

b3.setBounds(130, 100, 30, 30);

b4.setBounds(50, 140, 30, 30);

b5.setBounds(90, 140, 30, 30);

b6.setBounds(130, 140, 30, 30);

b7.setBounds(50, 180, 30, 30);

b8.setBounds(90, 180, 30, 30);

b9.setBounds(130, 180, 30, 30);

b0.setBounds(90, 220, 30, 30);

bAdd.setBounds(170, 100, 30, 30);

bSub.setBounds(170, 140, 30, 30);

bMul.setBounds(170, 180, 30, 30);

bDiv.setBounds(170, 220, 30, 30);

bEq.setBounds(50, 220, 30, 30);

bClr.setBounds(130, 220, 30, 30);

b1.addAcƟonListener(this);

b2.addAcƟonListener(this);

b3.addAcƟonListener(this);

b4.addAcƟonListener(this);

b5.addAcƟonListener(this);

b6.addAcƟonListener(this);

b7.addAcƟonListener(this);

b8.addAcƟonListener(this);

b9.addAcƟonListener(this);

b0.addAcƟonListener(this);

bAdd.addAcƟonListener(this);

bSub.addAcƟonListener(this);

bMul.addAcƟonListener(this);

bDiv.addAcƟonListener(this);

bEq.addAcƟonListener(this);

bClr.addAcƟonListener(this);

add(ƞ);

add(b1);

add(b2);

add(b3);

add(b4);

add(b5);

add(b6);

add(b7);

add(b8);

add(b9);

add(b0);

add(bAdd);

add(bSub);

add(bMul);

add(bDiv);

add(bEq);

add(bClr);

setTitle("Simple Calculator");

setSize(250, 300);

setLayout(null);

setVisible(true);

}

public void acƟonPerformed(AcƟonEvent e) {

String command = e.getAcƟonCommand();

if (command.equals("=")) {

String expression = ƞ.getText();

String result = evaluate(expression);

ƞ.setText(result);

} else if (command.equals("C")) {

ƞ.setText("");

} else {

ƞ.setText(ƞ.getText() + command);

}

}

private String evaluate(String expression) {

try {

ScriptEngineManager manager = new ScriptEngineManager();

ScriptEngine engine = manager.getEngineByName("JavaScript");

Object result = engine.eval(expression);

return result.toString();

} catch (ScriptExcepƟon e) {

return "Error";

}

}

public staƟc void main(String[] args) {

new SimpleCalculator();

}

}