

Corso di Laurea in Ingegneria Informatica

Corso di Ingegneria del Software

Graphic User Interface

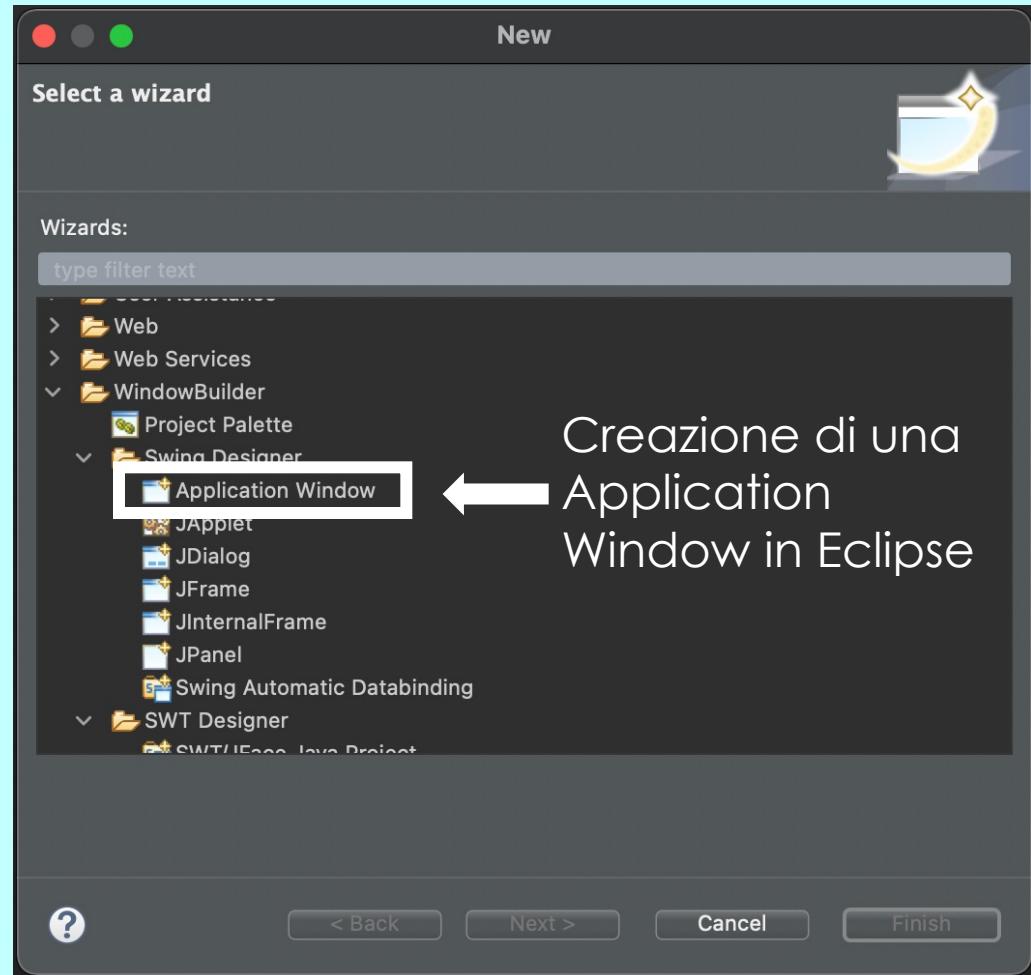
WindowBuilder

- ◆ WindowBuilder is composed of SWT Designer and Swing Designer and makes it very easy to create Java GUI applications without spending a lot of time writing code.
- ◆ <https://www.eclipse.org/windowbuilder/>



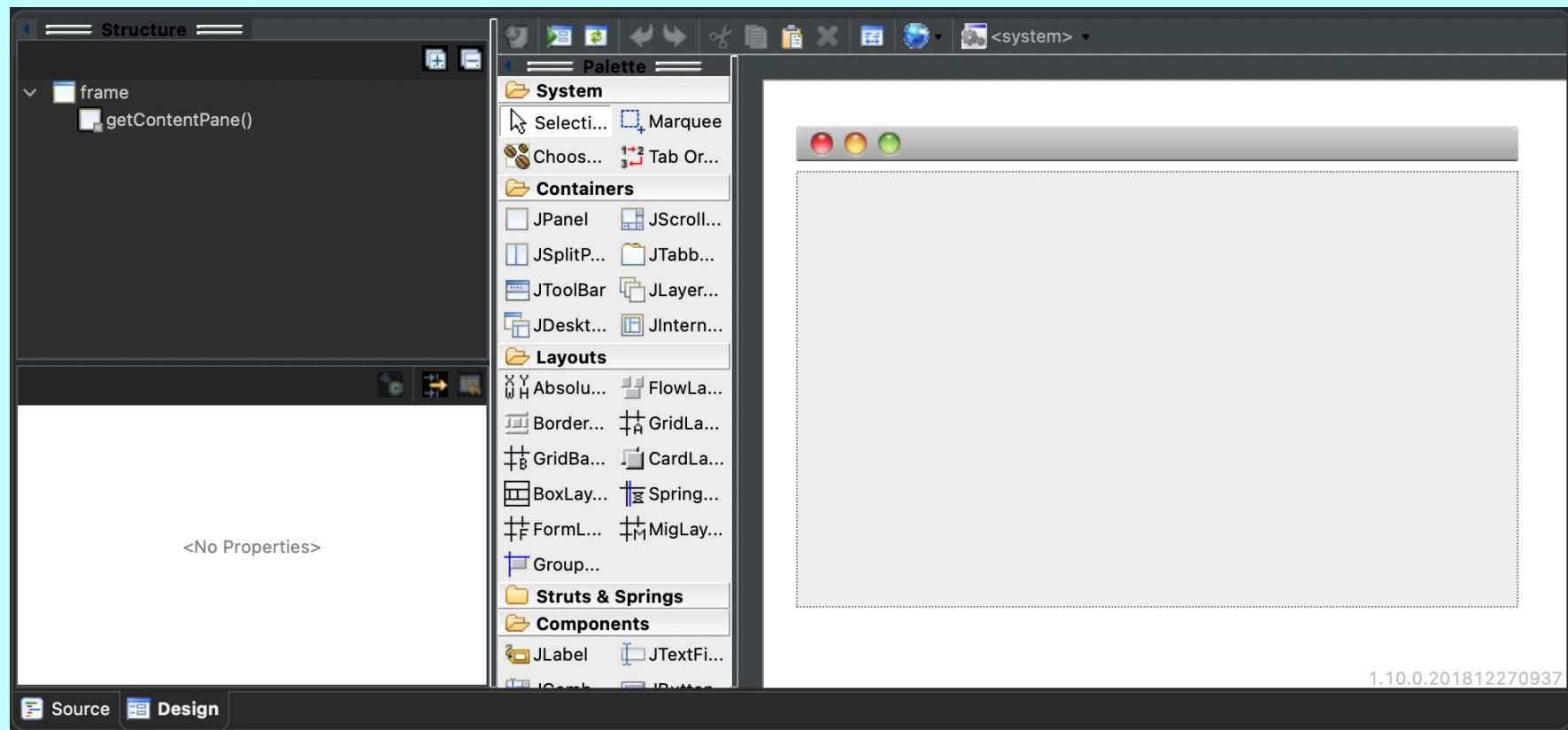
Prima GUI

- ♦ Implementazione di una GUI per l'applicazione **Calculator**



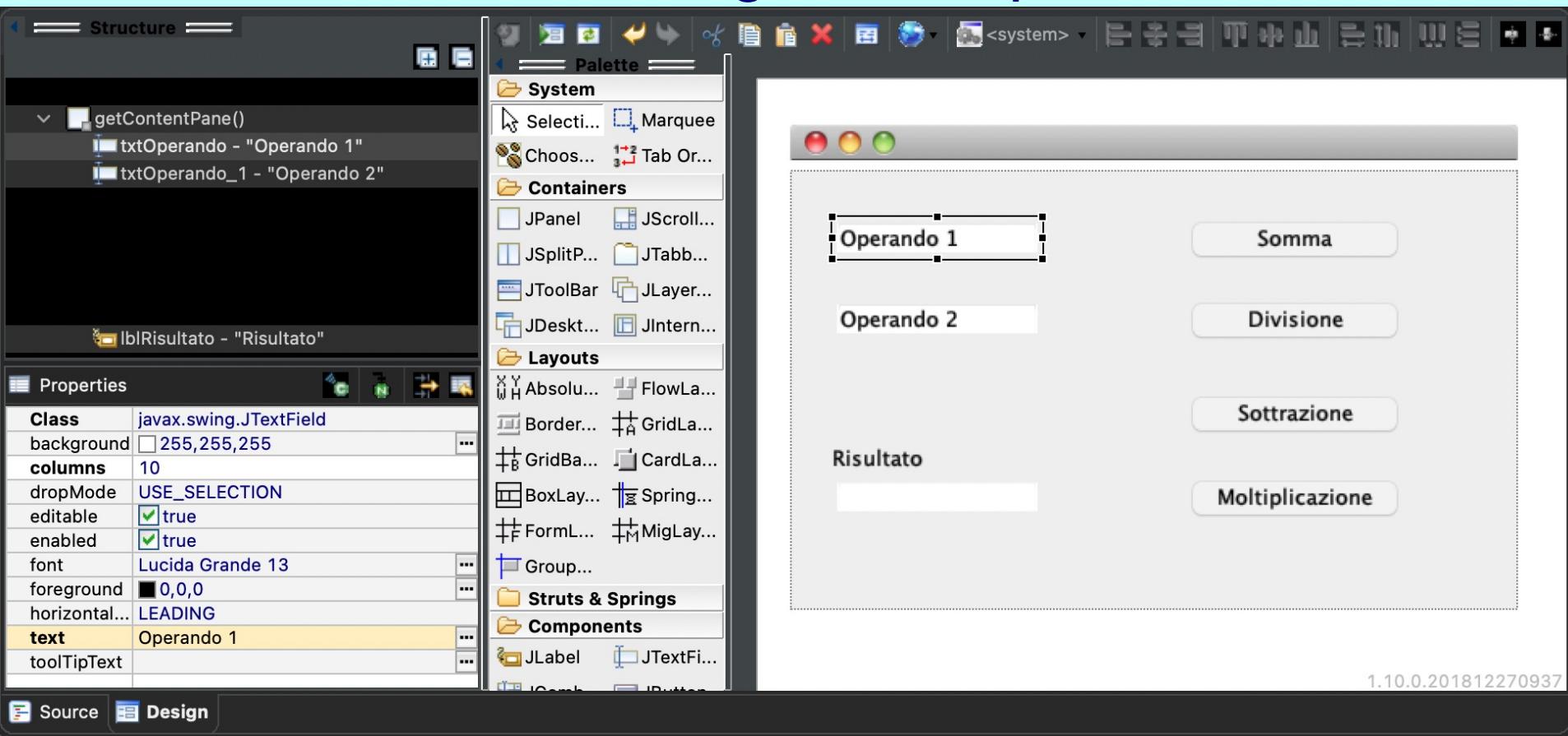
Design perspective

- ◆ Eclipse mostra una finestra per il “design” della GUI

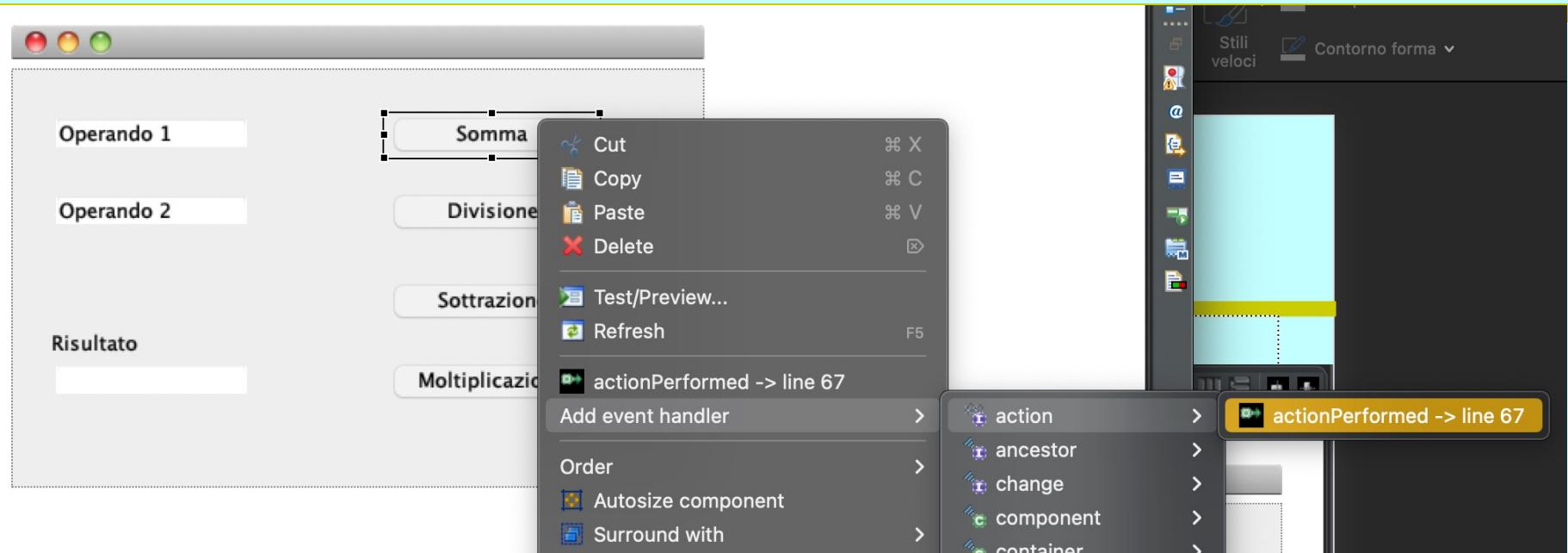


Drag and Drop

- ♦ I vari elementi dell'interfaccia possono essere inseriti mediante “drag and drop”

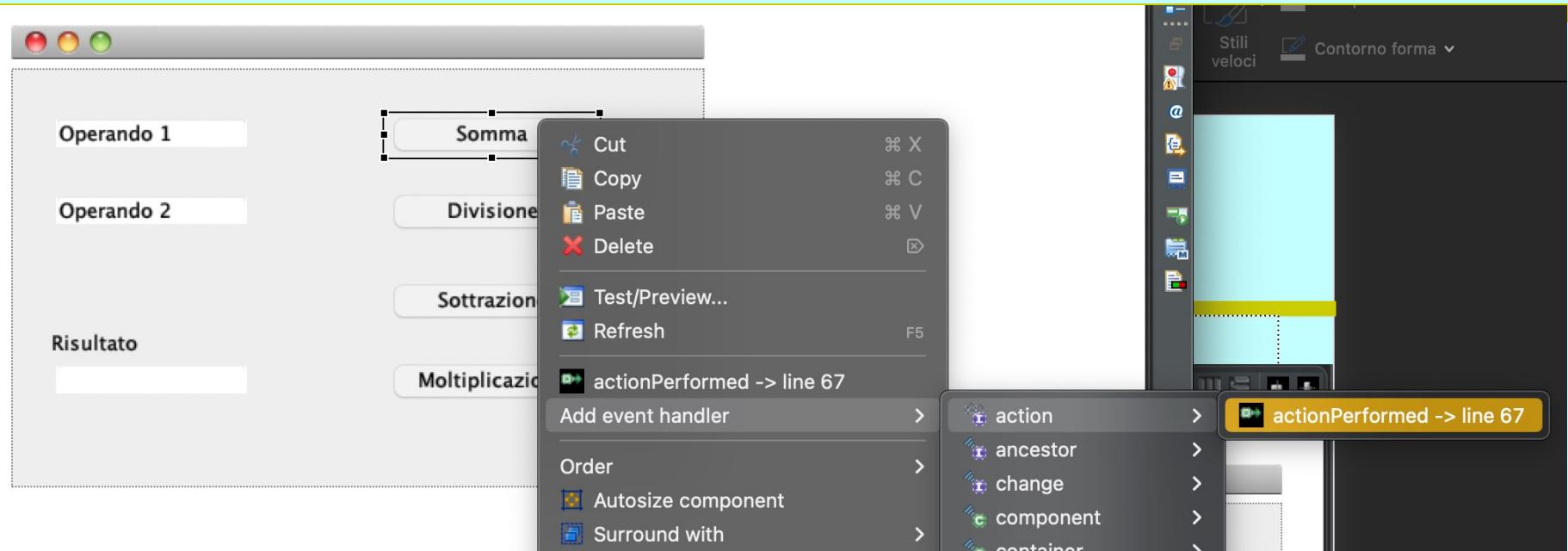


Event handler



- ◆ A questo punto è necessario implementare le azioni da svolgere nel caso di un evento “pressione del JButton”

Event handler



```
 JButton btnSomma = new JButton("Somma");
btnSomma.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        //Insert the code here
    }
});
btnSomma.setBounds(242, 29, 140, 29);
frame.getContentPane().add(btnSomma);
```

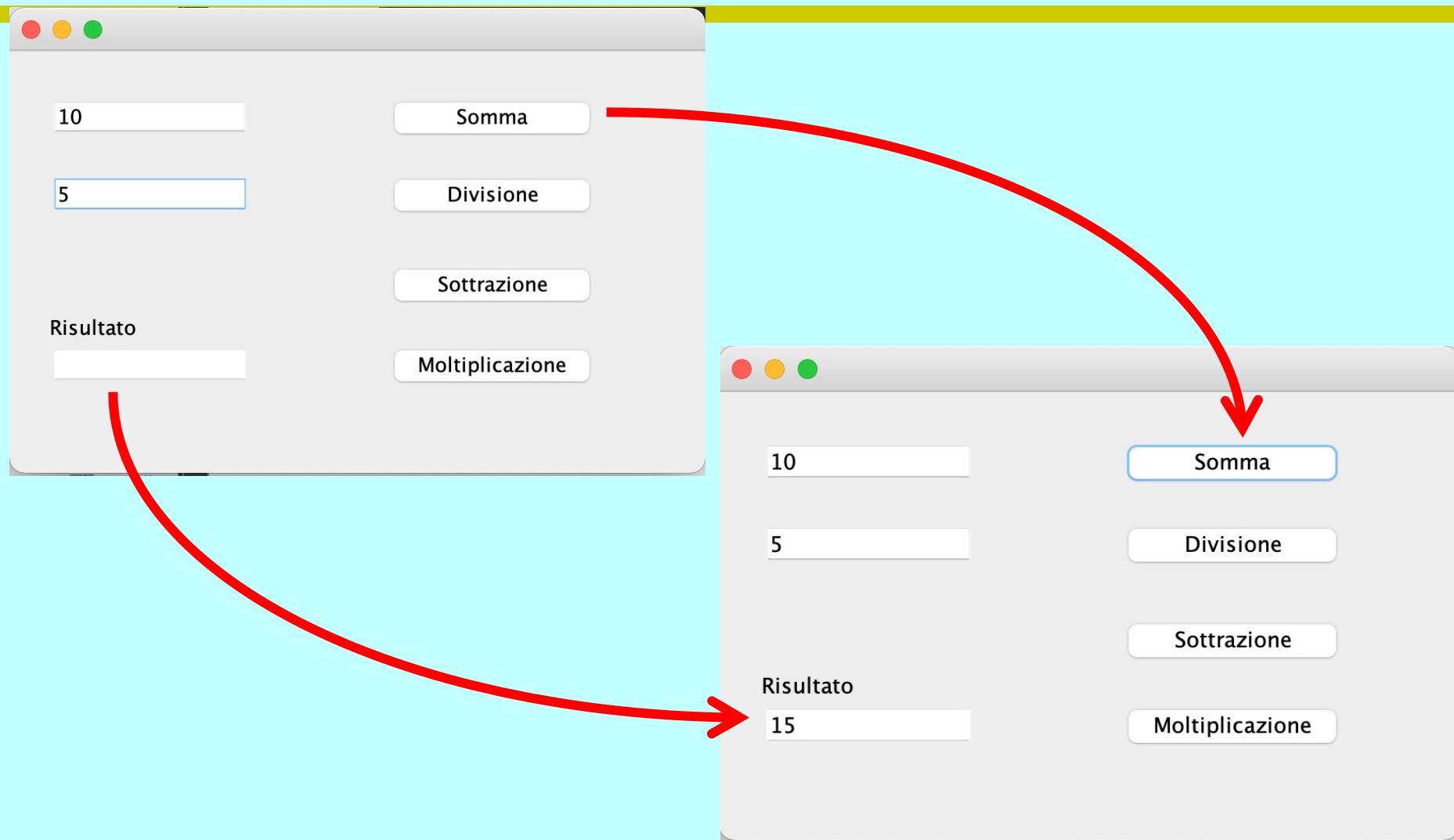
Implementazione di «somma»

- ◆ Definiamo una GUI per l'esempio della calcolatrice

```
public class Calculator {  
    public int somma(int x, int y) {  
        return x+y;  
    }  
}
```

```
JButton btnSomma = new JButton("Somma");  
btnSomma.addActionListener(new ActionListener() {  
    public void actionPerformed(ActionEvent e) {  
        int res = c.somma(Integer.parseInt(txtOperando.getText()), Integer.parseInt((txtOperando_1.getText())));  
        txtRisultato.setText(String.valueOf(res));  
    }  
});  
btnSomma.setBounds(242, 29, 140, 29);  
frame.getContentPane().add(btnSomma);
```

Al click del JButton

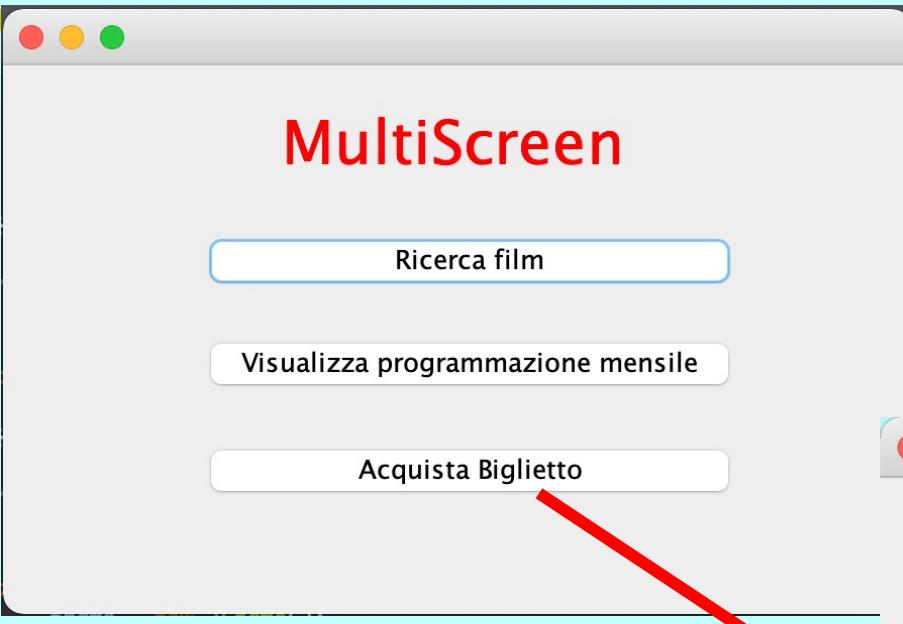


ESEMPIO «MULTISCREEN»

Menù principale



Acquista Biglietto



```
JButton btnAcquistaBiglietto = new JButton("Acquista Biglietto");
btnAcquistaBiglietto.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        try {
            Gui window = new Gui();
            window.frame.setVisible(true);
            frame.setVisible(false);
        } catch (Exception exc) {
            System.out.println("Errore nella creazione della finestra");
            //exc.printStackTrace();
        }
    }
});
btnAcquistaBiglietto.setBounds(96, 187, 270, 29);
frame.getContentPane().add(btnAcquistaBiglietto);
```

The screenshot shows a "Film" selection dropdown set to "Il Gladiatore". Below it are fields for "Data (aaaa-mm-gg)", "Ora (hh:mm)", "Numero posti" (set to 1), "email", and an "Acquista Biglietto" button. A "Return" button is also visible.

Ritorno al menù principale

The image shows a Java Swing application window titled "MultiScreen". On the left side, there are fields for "Film" (Il Gladiatore), "Data (aaaa-mm-gg)" (empty), "Ora (hh:mm)" (empty), "Numero posti" (1), and "email" (empty). Below these fields are two buttons: "Acquista Biglietto" and "Return". On the right side, there is a large empty white area. A red arrow points from the "Return" button on the left towards the main menu screen on the right.

```
JButton btnReturn = new JButton("Return");
btnReturn.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        frame.setVisible(false);
        MainMenu.frame.setVisible(true);
    }
});
btnReturn.setBounds(306, 223, 117, 29);
frame.getContentPane().add(btnReturn);
```

The right side of the image shows a separate "MultiScreen" window with three buttons: "Ricerca film", "Visualizza programmazione mensile", and "Acquista Biglietto".