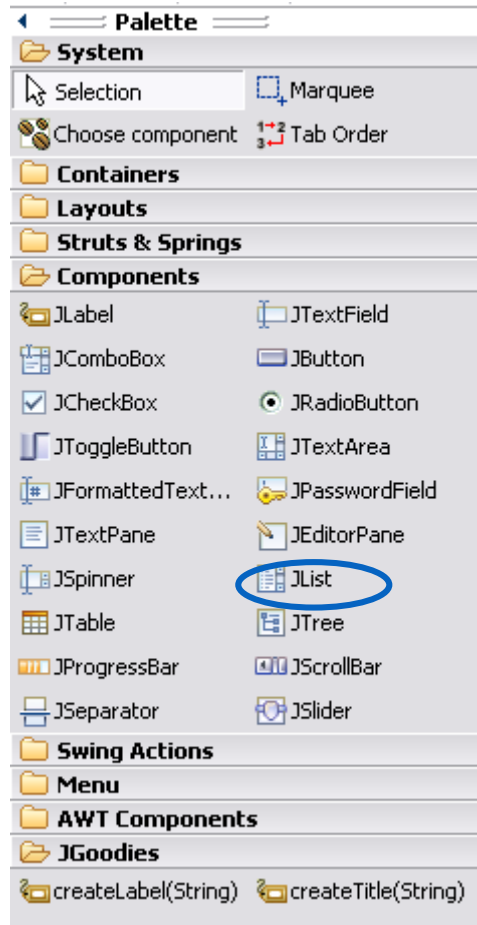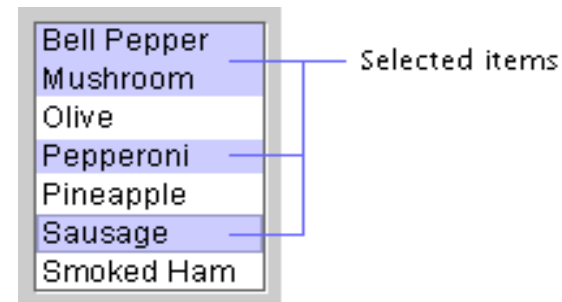# Theory pills
Lab 9

Other components.

- Menus (*JMenuBar*)
- **Lists (*JList*)**
- **Sliders (*JSlider*)**
- Progress bars (*JProgressBar*)
- Spinners (*JSpinner*)
- Tables (*JTable*)
- Trees (*JTree*)

Lists (JList)

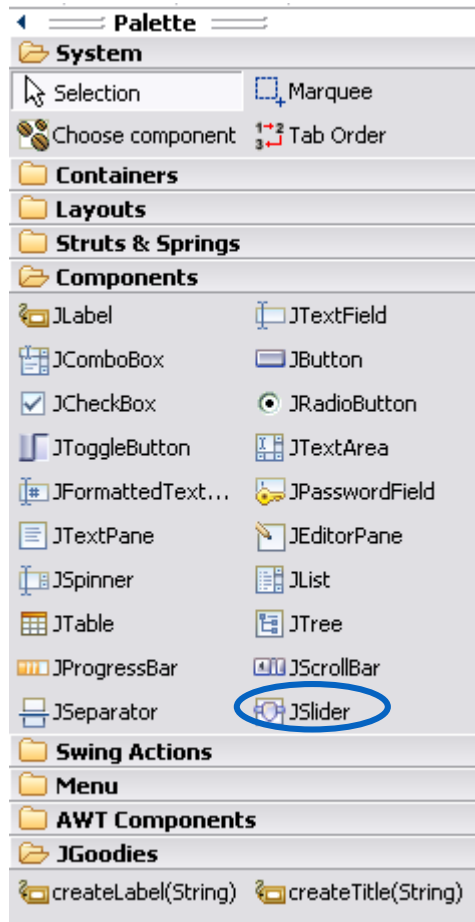- It shows a set of textual and /or graphical items

- Items must be capitalized and ordered!

- Three selection modes
  - Simple items
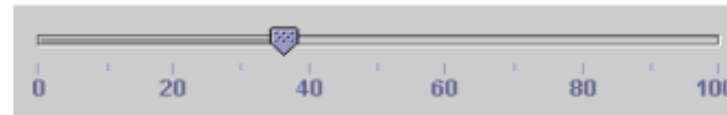 - Simple range
  - Multiple ranges

Lists (II)

- Some interesting properties and methods...
  - Properties
    - *selectionMode* (SINGLE_SELECTION, SINGLE_INTERVAL_SELECTION, MULTIPLE_INTERVAL_SELECTION)
  - Methods
    - *getSelectedValue* // Only for simple selection
    - *getSelectedIndex*
    - *getSelectedValues*
    - *getSelectedIndexes*
    - *getModel*
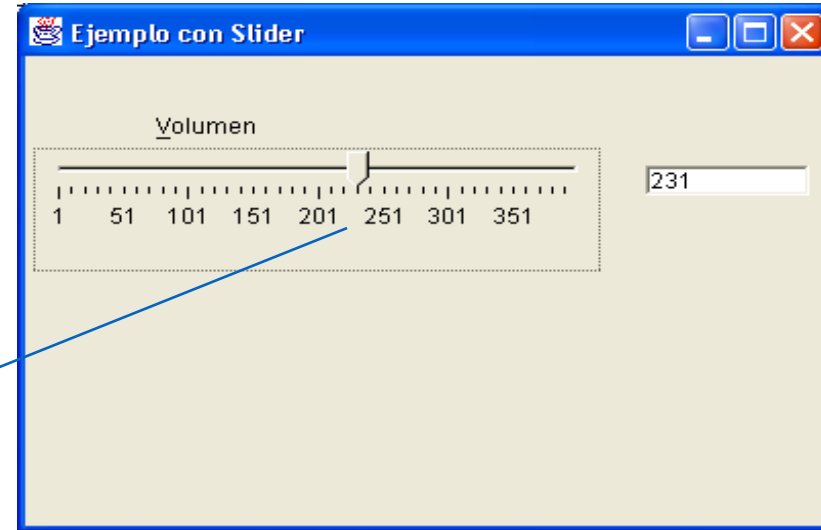
Sliders (JSlider)

- It allow us to select a **numeric number** within a **continuous or discontinuous** range of values

- Pointer position pointes out the current value

- If the *slider* represents a continuous or a huge number of discrete values, be careful, the selected value must be exact!
  - So, a good practice is using a text field to show the selected value to the users, allowing them to key directly the value in the text field.
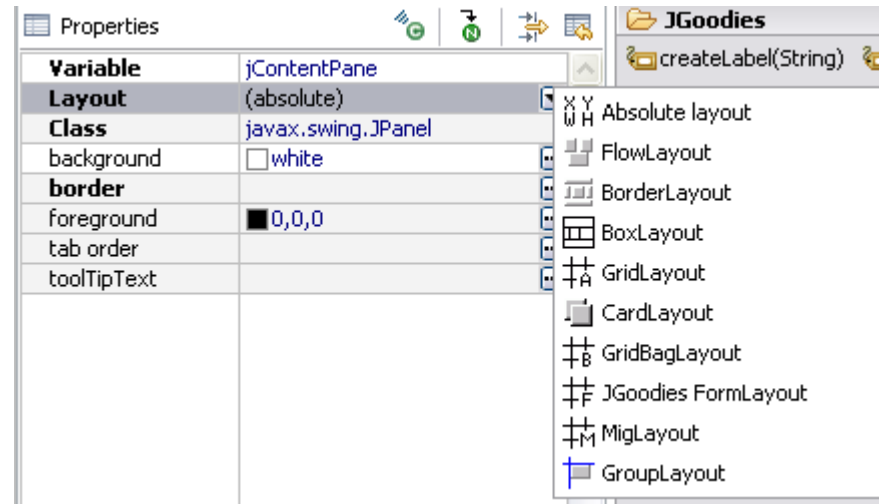
Sliders - Example

When the *slider* is splipped...

```
txVolumen.setText(Integer.toString(slVolumen.getValue()));
```

Types of Layouts

- The most popular are...
  - FlowLayout
  - **BorderLayout**
  - CardLayout
  - GridLayout
  - BoxLayout
  - GridBagLayout
- By default...
  - JFrame, JDialog → BorderLayout
  - JPanel, JScrollPane → FlowLayout

BorderLayout

- It uses 5 areas to place components: North, South, East, West and Center.
- When a component is added to that positions...
  - North or south: the component is resized to fill the width of the container.
  - East of West: the component resized to fill the height of the container
  - Center: The component fills all the available space
- The property *constraints* of the components can determine their position
- Properties:
  - hgap: horizontal distance
  - vgap: vertical distance
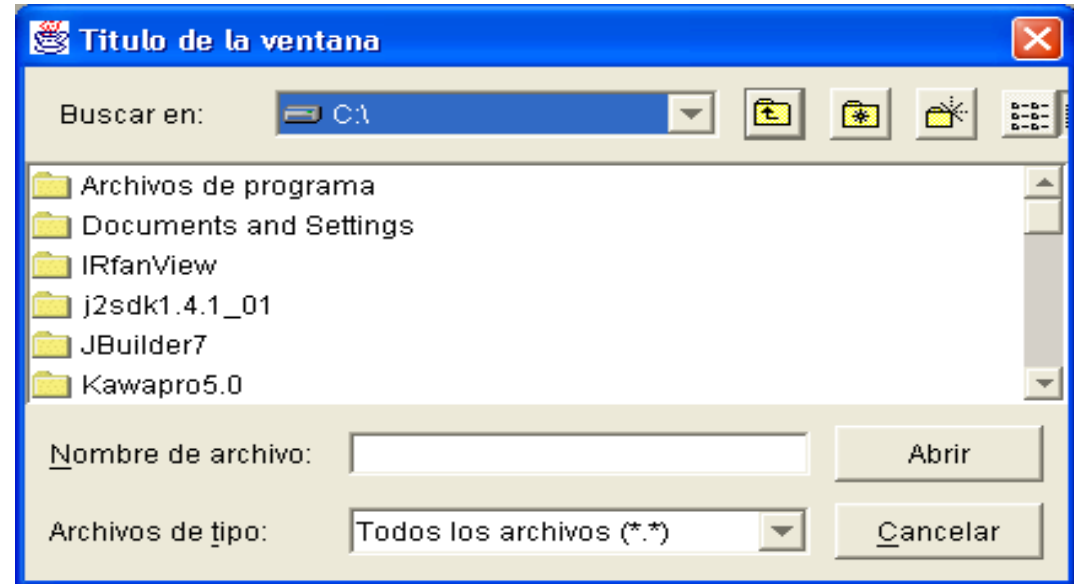
Main types of containers

- Frame (JFrame)

- **Dialog (JDialog)**

- Panel (JPanel)

- Scroll Panel (JScrollPane)

- Tabbed panel (JTabbedPane)

- Tool bar (JToolBar)

Dialog (II)

- In Swing, several standard classes supporting dialogs:

    - JOptionPane

    - JColorChooser

    - JFileChooser

- All of them are **modal**

JFileChooser

▸ File selection dialog.

▸ It only manages the selection of the file. The application must face with its processing (open it, save it, print it or whatever).

▸ Available uses:

  ▸ *showDialog*

  ▸ *showOpenDialog*

  ▸ *showSaveDialog*

▸ *multiSelectionEnabled* property determines the availability of multiple file selection

JFileChooser (II)

- Example with showOpenDialog

```
private JFileChooser selectorFicheros = new JFileChooser();
. . .

if (selectorFicheros.showOpenDialog(this)== selectorFicheros.APPROVE_OPTION)
    {
        txOpcion.setText("El usuario seleccionó ABRIR");
        txFichero.setText(selectorFicheros.getSelectedFile().getName());
    }
    else
        txOpcion.setText("El usuario seleccionó CANCELAR");
```