

GUIs

javax.swing and Listeners

JFrame – where it all begins

- Containers
- add()
- setLayout()
 - GridLayout(rows, cols//, hgap, vgap)
 - BorderLayout() – cardinal directions and CENTER

JPanel – mini JFrames

- Also a container
- Can have multiple in a single frame, and even in other JPanels

JLabel

- Quick display
- Strings, images, and both
- Non-reactive to listeners

Using Listener Interfaces

- .addxxxxListener()
- ChangeListener
 - JSlider
- Other listeners:
 - WindowListener
 - KeyListener
 - MouseListener
 - ActionListener
- Abstract class version: Adapters