

**SWING:**  
**CLASSES AND BUILDING BLOCKS – I**

# BASIC BUILDING BLOCKS – JFRAMES AND JCOMPONENTS

EACH UI APPLICATION HAS A SINGLE JFrame

A JFrame CONTAINS MANY UI ELEMENTS

EACH UI ELEMENT IS A JComponent

EXAMPLES OF JComponent INCLUDE

JTextArea JTreeView JMenuBar

JScrollPane JPanel JFileChooser

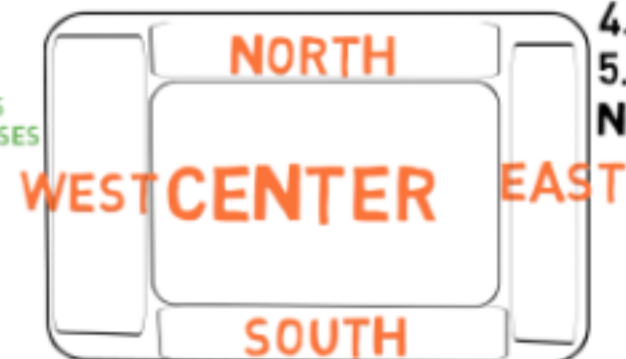
**WE WILL USE EACH ONE OF THESE  
CLASSES IN OUR EXAMPLE**

IT IS SURPRISINGLY DIFFICULT TO GET  
UI ELEMENTS POSITIONED PRECISELY  
INSIDE A `JFrame`

THE EASIEST WAY TO DO THIS IS USING `Layouts`

THEY MANAGE THE PLACEMENT OF UI  
ELEMENTS INSIDE ANOTHER UI ELEMENT

BORDERLAYOUT  
IS ONE OF MANY  
DIFFERENT TYPES  
OF LAYOUT CLASSES



A COMMON WAY OF DOING THIS:

1. SPECIFY LAYOUT ON JFRAME
2. ADD PANELS TO EACH PART OF JFRAME
3. SPECIFY LAYOUT FOR EACH PANEL
4. ADD UI ELEMENTS TO EACH PANEL
5. USE SCROLLBARS WHEREVER NEEDED

## SWING HAS MULTIPLE ELEMENTS FOR TEXT

**TextField** SINGLE LINE, INPUT AND OUT

**TextArea** MULTIPLE LINES, INPUT AND OUTPUT,  
TEXT CAN BE WRAPPED

**EditorPane** A LIGHTWEIGHT BROWSER CONTROL, GIVEN  
A URL WILL RENDER IT TO SCREEN