GUI - Graphical User Interface

- JFC - Java Foundation Classes
  - An API for providing a graphical user interface (GUI) for Java programs.
  - Include AWT, Swing and Java 2D.
GUI widget toolkit

- Swing
  - Primary Java GUI widget toolkit

- AWT
  - Original platform-independent windowing, graphics, and user-interface widget toolkit.

- SWT
Swing

- Top-Level Containers
  - JFrame, JDialog, and Japplet
Swing

- General-Purpose Containers
  - JPanel, JScrollPane, JSplitPane, and so on
- Special-Purpose Containers
  - JInternalFrame, JLayeredPane and Root pane
JPanel

- JPanel()
  - Creates a new JPanel with a double buffer and a flow layout.

- JPanel(LayoutManager layout)
  - Create a new buffered JPanel with the specified layout manager

- setLayout(LayoutManager layout)
LayoutManage

- Interface
- FlowLayout
- BorderLayout
- GridLayout
- ...
Jcomponent

- All Swing components whose names begin with "J" descend from the JComponent class
  - JButton
  - JCheckBox
  - JComboBox
  - JRadioButton
  - JTextField
  - JTable
  - ...


Jbutton

- ActionListener
  - Interface
  - [http://docs.oracle.com/javase/7/docs/api/java/awt/event/ActionListener.html](http://docs.oracle.com/javase/7/docs/api/java/awt/event/ActionListener.html)
  - actionPerformed(ActionEvent e)

- ActionEvent
  - Class
  - Click a button, create an event
JOptionPane

- `JOptionPane.showMessageDialog();`
Practice

- Finish the code
- Learn how to write a GUI