GUI

* All-in-one design pattern
  + The window and all components, data, etc. within the window are handled by a single class
  + That class extends JFrame
    - Inherits all the features of JFrame, i.e., it can display and manipulate a window
  + Components of the window are fields within the class
    - JLabel – text
    - JButton – clickable button
    - By making them components within the window, they can be manipulated by methods within the class
    - If we just put them in the constructor, generally we can’t access/change them after the window is created
  + Appearance of the window is handled by the constructor
    - Titlebar text
    - Window size
    - Close behavior
    - Layout
    - Adding components and registering listeners
    - Setting visible
  + ActionListener is implemented by the class itself
    - ActionListener provides the method that is executed when a button is clicked
    - Extended JFrame also implements ActionListener
    - When we addActionListener to a button we say:
      * addActionListener(this);
* This is a very simplistic way to write a GUI program, and it’s appropriate for very simple applications
  + There is a more complicated design pattern called Model-View-Controller (MVC) – described in the course notes – I’m assigning this as a reading (Notes Chapter 6 – Model-View-Controller part)