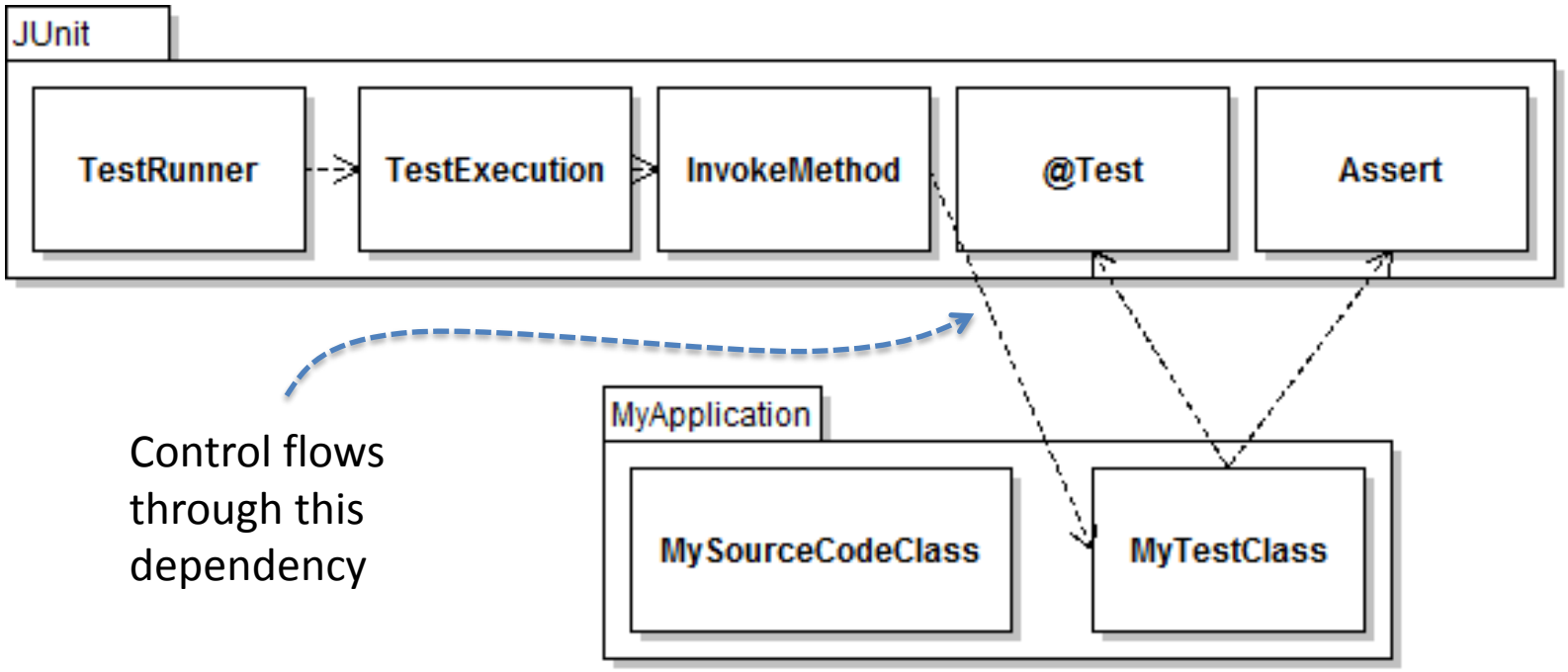
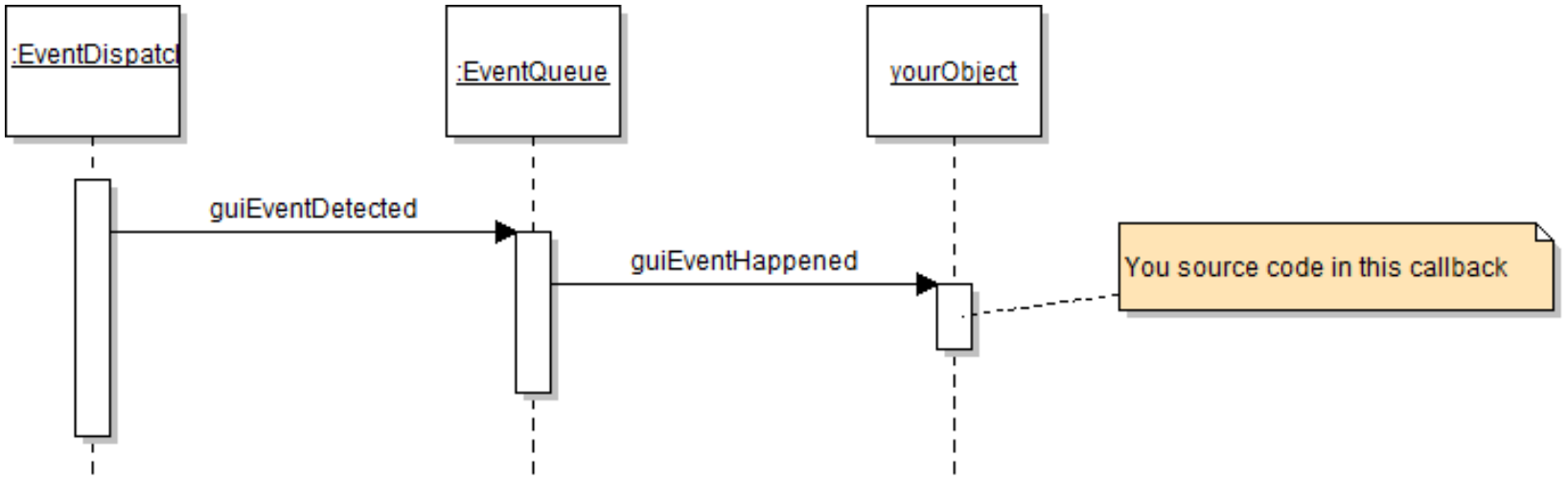
Introduction to GUI Programming

1. Refresh: Frameworks and Hollywood
2. The concept of an event loop (with simplification)
3. JFrames and the Architecture of a GUI Application
4. ActionListeners (Observer)
   - Separate classes
   - GUI Component
   - Anonymous classes and adapters
5. Widget layout (Strategy)
6. Widget composition (Composite)
7. Widget decoration (Decorator)
8. Thread containment
9. JavaFX walkthough

A Simplified View of JUnit

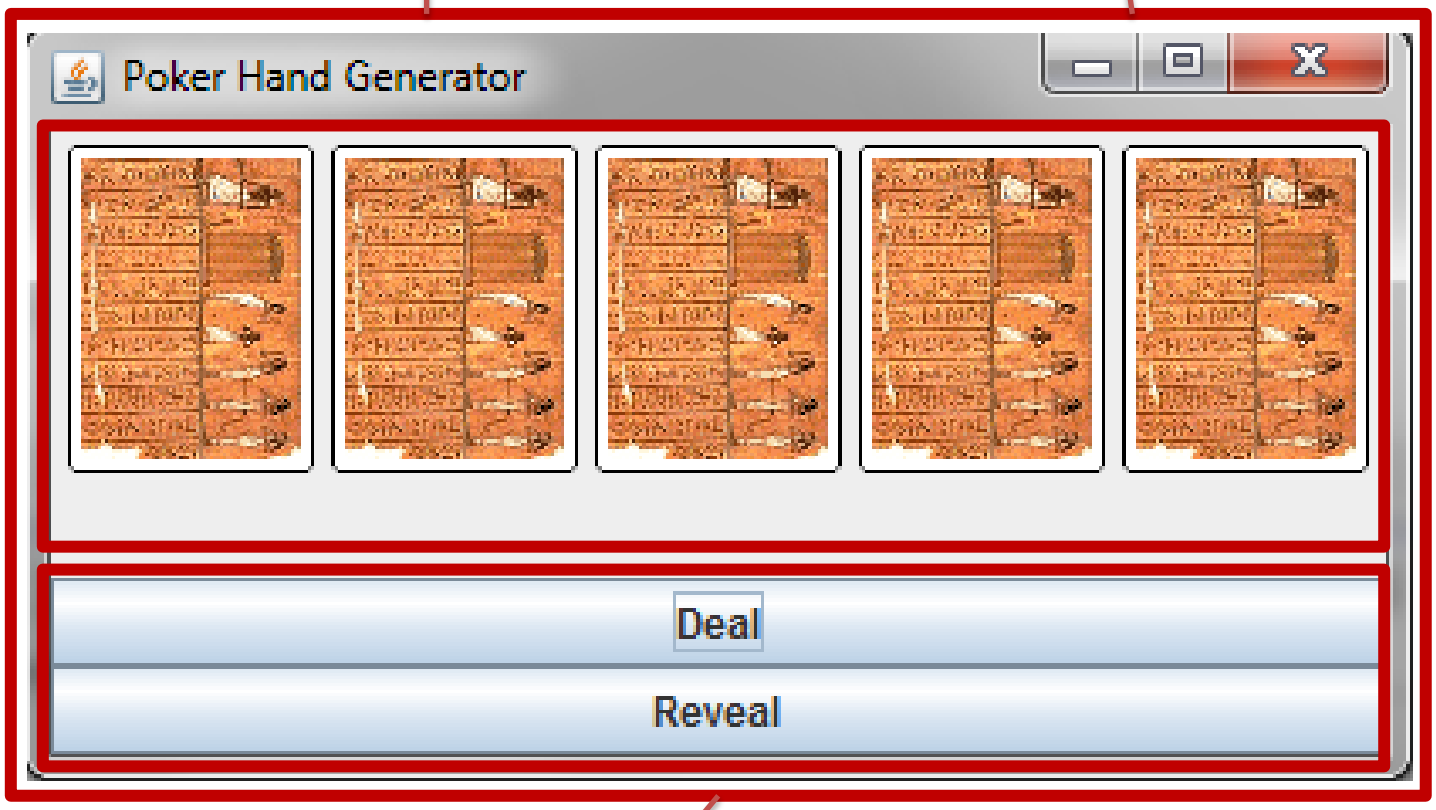


How a GUI Framework Calls Your Code



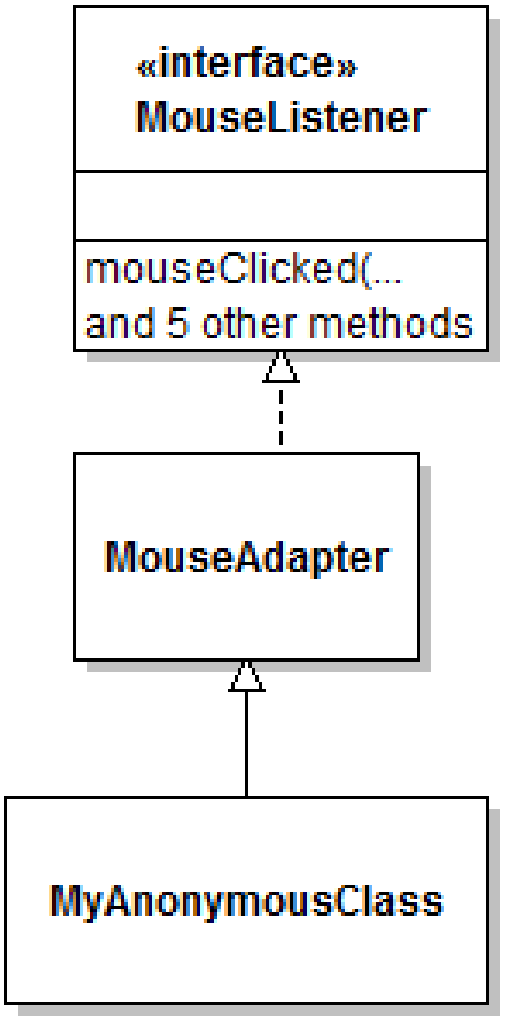
JPanel. LayoutStrategy == FlowLayout (default)

JFrame. LayoutStrategy == BorderLayout

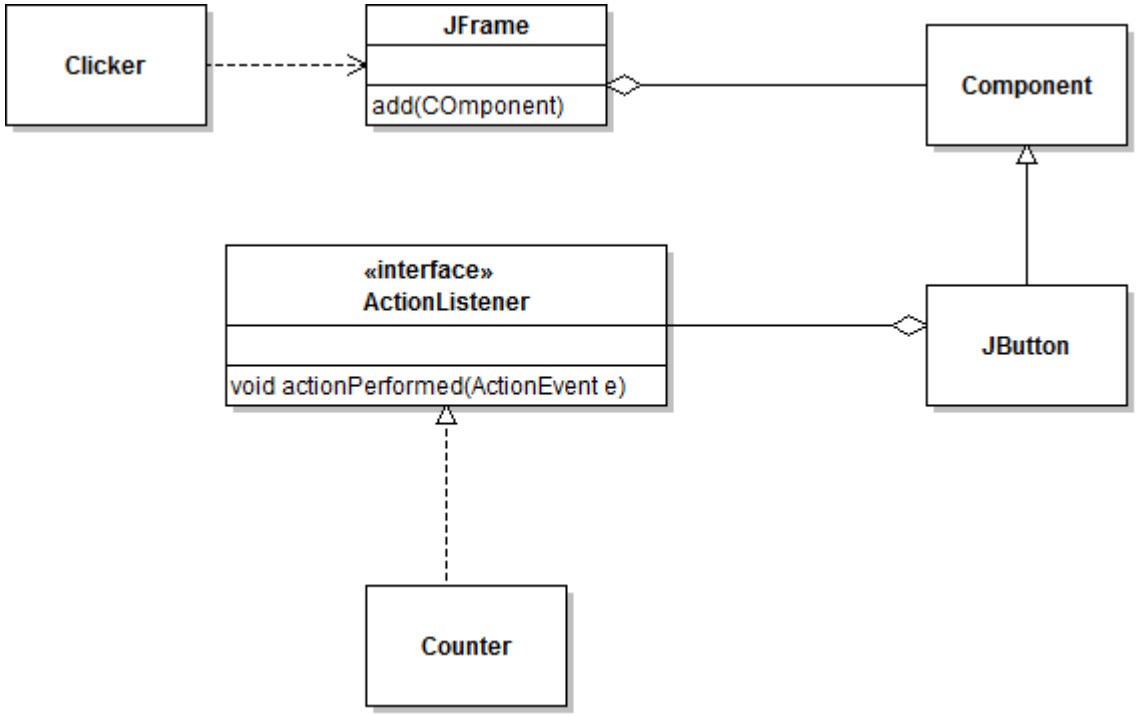


JPanel. LayoutStrategy == GridLayout

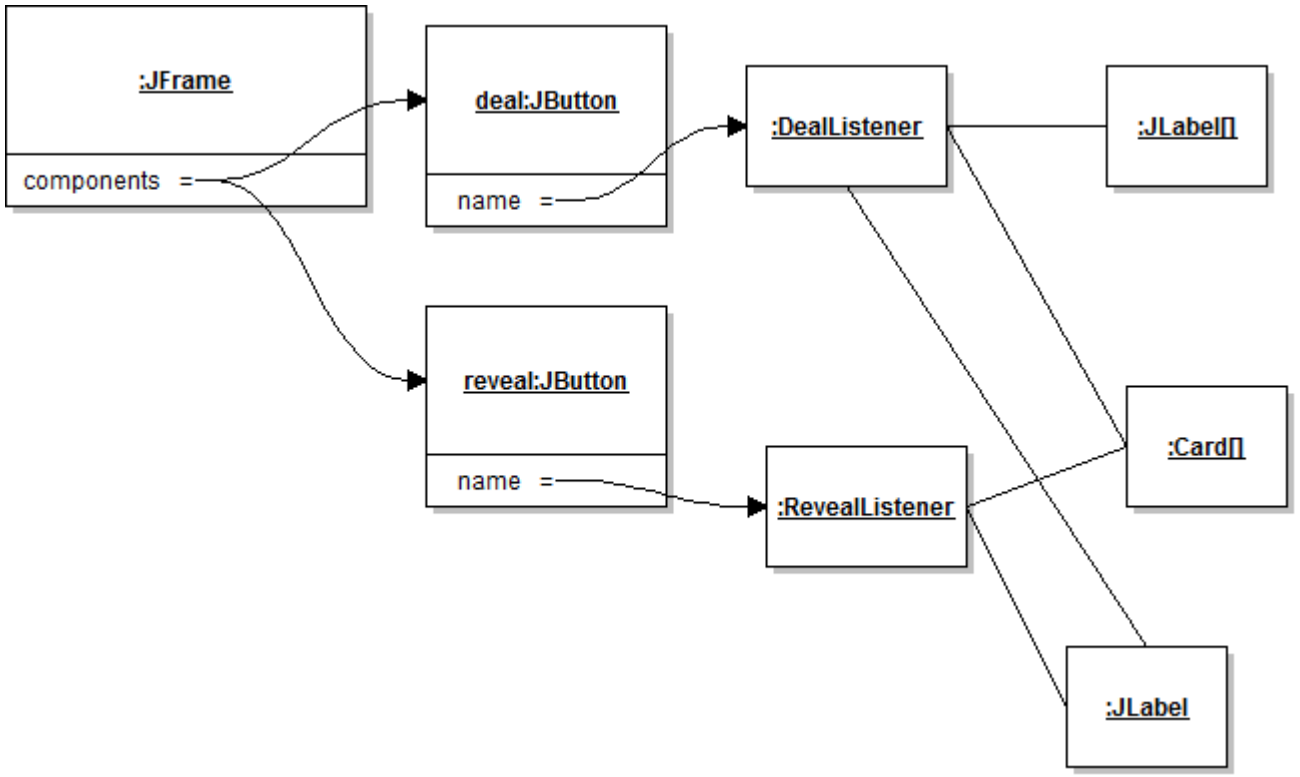
The concept of adapters in Swing
(I didn't have time to cover this in class: see 6.2.2 in the text book)



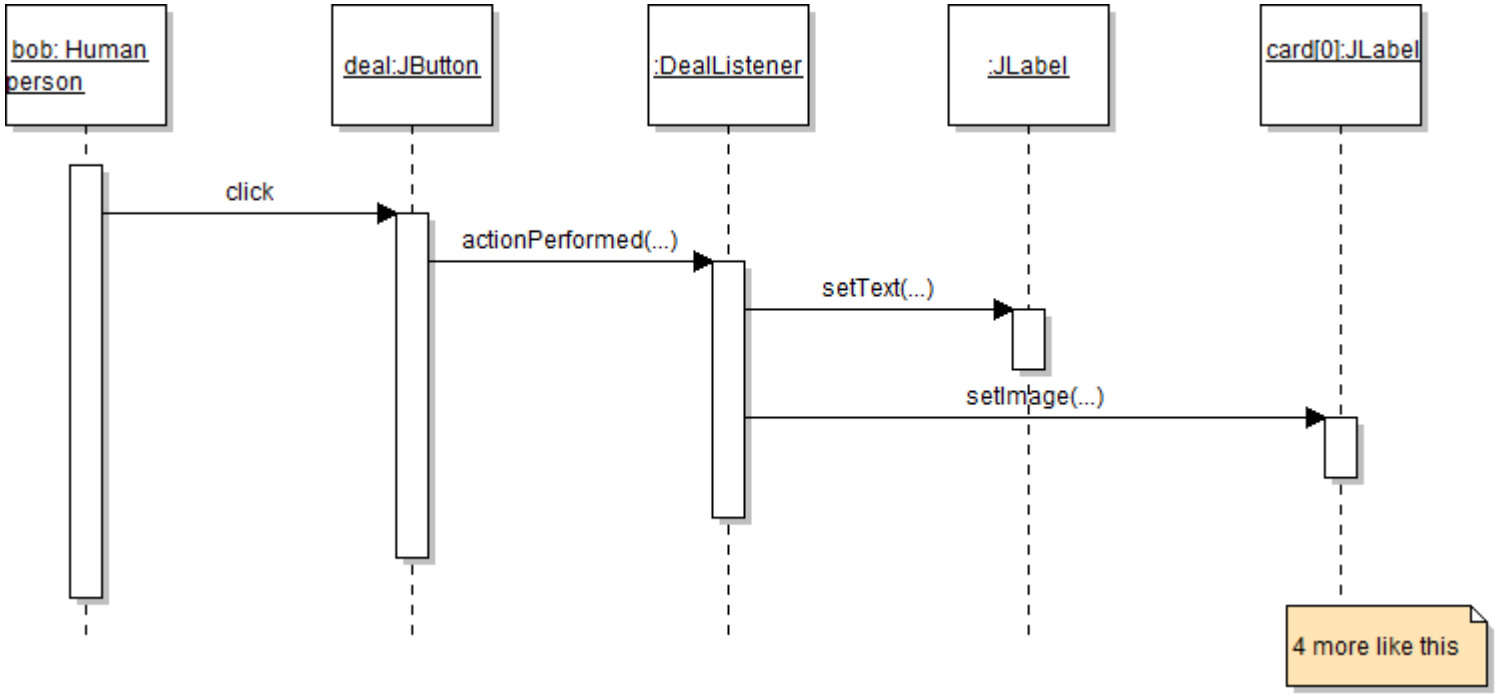
Class Diagram of the Clicker Program



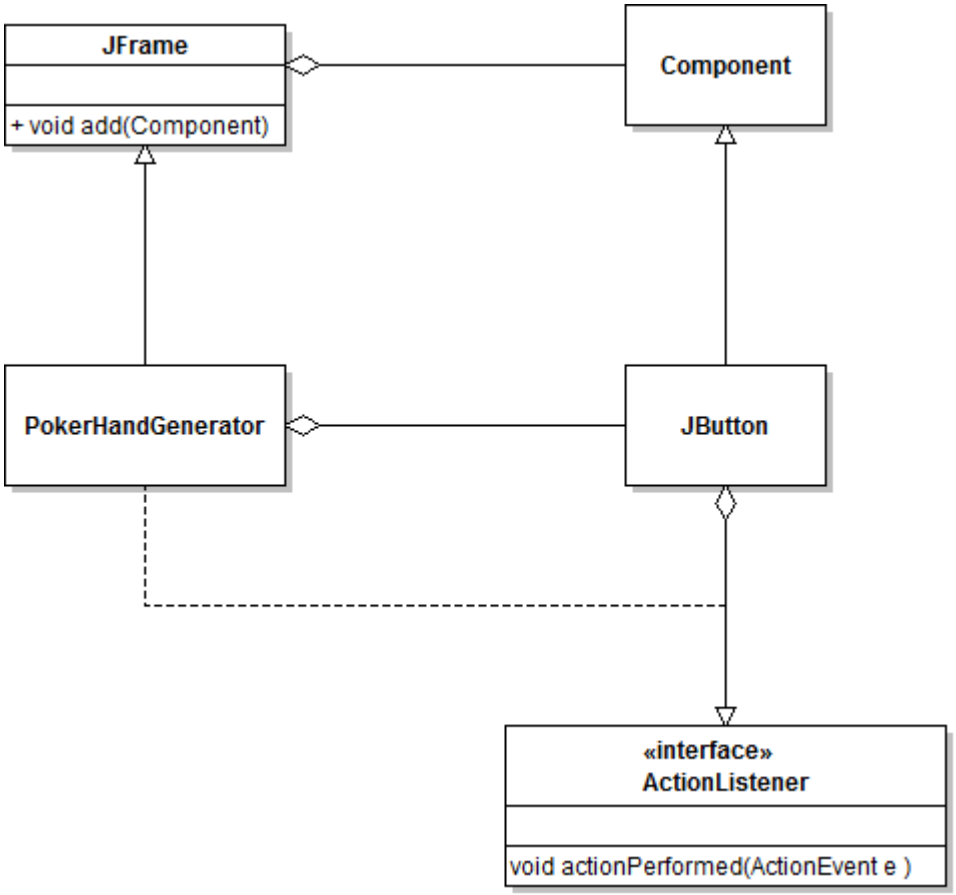
Object Diagram of PHG Version 1



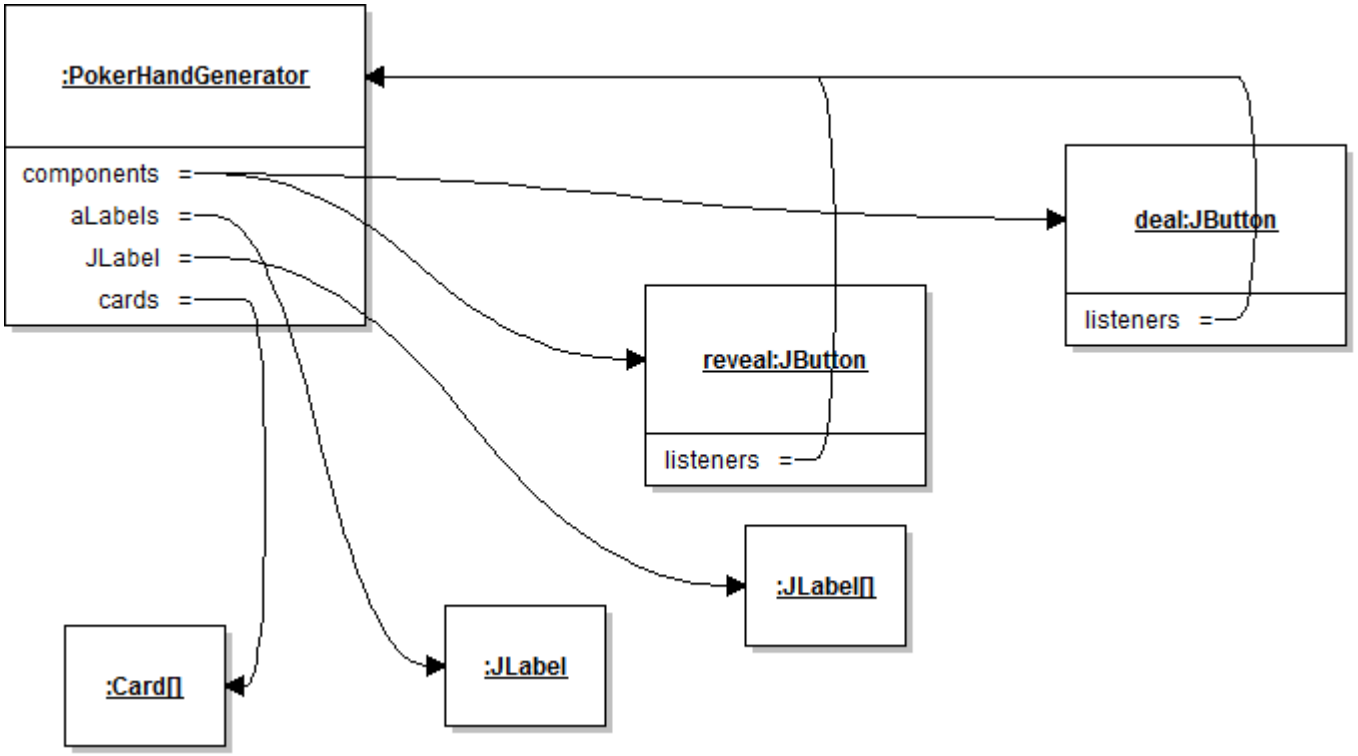
Sequence Diagram of PHG Version 1



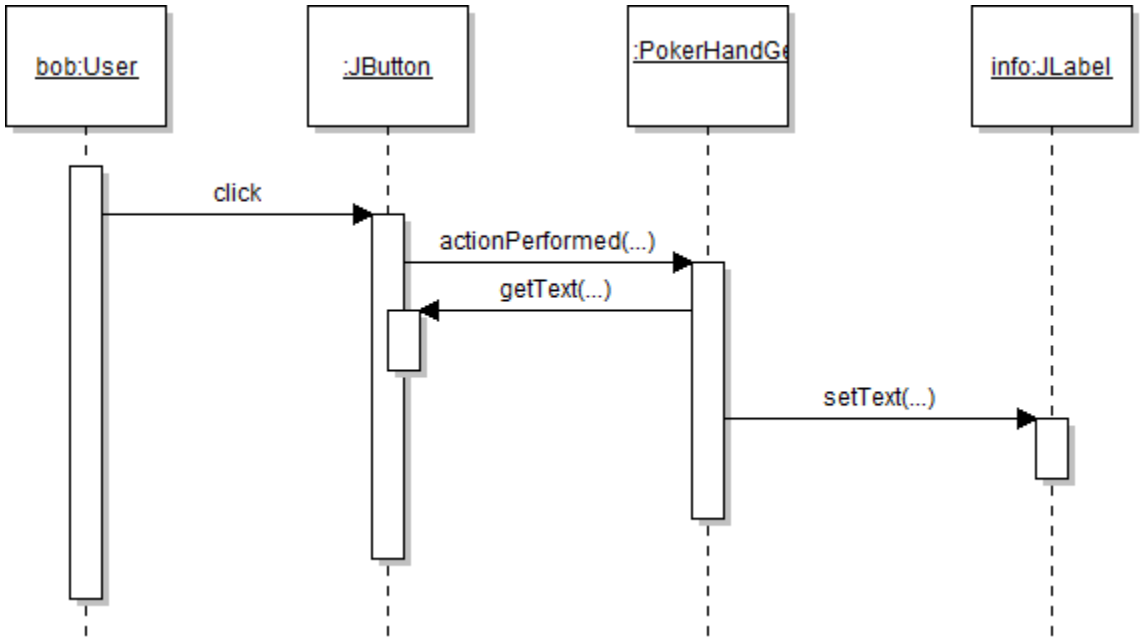
Class Diagram of PHG Version 2



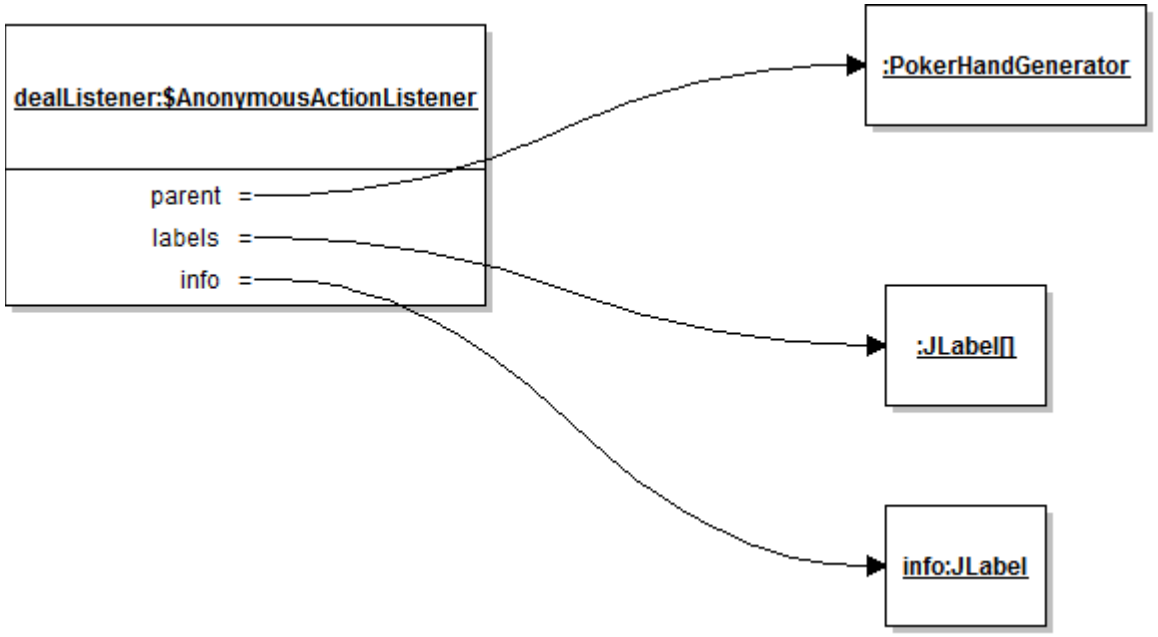
Object Diagram of PHG Version 2



Sequence Diagram of PHG Version 2



Partial Object Diagram of PHG Version 3



This is all happening in the application constructor. Anonymous classes get extra fields pointing to final variables in their enclosing scope.

Composite Design Pattern Instance in Swing