Design Patterns cont.

To date...

• Singleton
• Facade
• Bridge
• Strategy
• Adapter
• Composite

Today

• State
• Command

Problem

• I am building a drawing program. The user enters keystrokes to change modes (Add, Delete, Move) and mouse input that is interpreted based on the current mode.
• Currently I use some global variables to record state information and long switch statements in my mouse and keyboard functions to process input. What is wrong with this picture?
• Come up with a better design.

State Design Pattern

State Design Pattern
**Design Principles**

Encapsulate variability.

Information expert: Responsibilities should be assigned to the class that has the information to handle the responsibility.

**Problem continued**

- I also want to support “Undo”
- Help!

**Exercise**

Choose three design patterns and propose ways you could have used them in (an improved version of) your golf game.