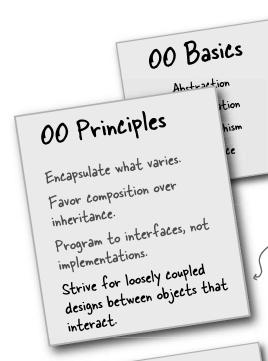


Tools for your Design Toolbox

Welcome to the end of Chapter 2. You've added a few new things to your OO toolbox...



-Here's your newest principle. Remember, loosely coupled designs are much more flexible and resilient to change.

00 Patterns

Strå encaf inter vary Observer - defines a one-to-many dependency between objects so that when one object changes state, all its dependents are notified and updated automatically

A new pattern for communicating state to a set of objects in a loosely coupled manner. We haven't seen the last of the Observer Pattern – just wait until we talk about MVC!



- The Observer Pattern defines a one-to-many relationship between objects.
- Subjects, or as we also know them, Observables, update Observers using a common interface.
- Observers are loosely coupled in that the Observable knows nothing about them, other than that they implement the Observer Interface.
- You can push or pull data from the Observable when using the pattern (pull is considered more "correct").
- Don't depend on a specific order of notification for your Observers.
- Java has several implementations of the Observer Pattern, including the general purpose java.util. Observable.
- Watch out for issues with the java.util.Observable implementation.
- Don't be afraid to create your own Observable implementation if needed.
- Swing makes heavy use of the Observer Pattern, as do many GUI frameworks.
- You'll also find the pattern in many other places, including JavaBeans and RMI.

Pesigning the Weather Station

How does this diagram compare with yours?

