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Design Patterns

How to create pleasing structure?

- Identify a few simple patterns
- Ensure all forces are balanced
- Rinse, repeat

Building Software

- Is quite a bit like creating a building
- Many forces to take into account
- Many variables that change over time

Notion of Design Patterns

- Evolved from ‘real building terminology’
- Allows certain elegant solutions in the presence of:
 - Common problems
 - Common tools
 - Common forces of change

Design Principles

- Identify aspects of your application that vary and separate them from what stays the same
- Favor *composition* over *inheritance*

Strategy Pattern

Pattern 1

- Defines a family of algorithms/behaviour, encapsulates each one and makes them interchangeable
- Strategy lets algorithm vary independently from the client that uses it

Observer Pattern

- Defines a one to many dependency between objects so that when one object changes state, all of its dependents are notified automatically