

# Software Development Process

- Requirements
  - finding out what is needed
- Analysis
  - formally specifying the requirements
- Design
  - modeling packages, classes and methods
- Implementation
  - coding
- Testing
  - making sure the code works

# Discovering Classes

- Classes in an invoice application?
- Classes in a messenger?
  - messenger address book?

# Modeling Classes

- Unified Modeling Language (UML)
- Class diagrams
  - classes
    - attributes (fields)
    - methods
  - inheritance
  - other relations between classes
    - aggregation
    - interface implementation
    - dependency

# Software Process Models

- Order of steps in software development
- Waterfall process
  - old
  - each activity is a phase
  - you try not to go back to phase once you're done
- Rational Unified Process (RUP/UP)
  - prescriptive
  - iterative
  - for large projects, large teams
- Extreme Programming (XP)
  - agile, little planning
  - very small iterations
  - for small, experienced teams