CS 61A Lecture Notes Week 16

Topic: Review

Reading: No new reading; study for the final.

• Go over first-day handout about abstraction; show how each topic involves an abstraction barrier and say what's above and what's below the line.

• Go over the big ideas within each programming paradigm:

Functional Programming:
composition of functions
first-class functions (function as object)
higher-order functions
recursion
delayed (lazy) evaluation
(vocabulary: parameter, argument, scope, iterative process)

Object-Oriented Programming:
actors
message passing
local state
inheritance
identity vs. equal value
(vocabulary: dispatch procedure, delegation, mutation)

Client/Server Programming:
event-driven process (idle if nothing to do)
callback from operating system for events
cooperation among separate computers
(vocabulary: client, server, IP address, port, socket, thread)

Logic Programming:
focus on ends, not means
multiple solutions
running a program backwards
(vocabulary: pattern matching, unification)

• Review where 61A fits into the curriculum. (See the CS abstraction hierarchy in week 1.)

Please, please, don't forget the ideas of 61A just because you're not programming in Scheme!