CSE 142 Midterm 2 Topic List – February 18, 2004

Here is a brief checklist of the additional topics that have been covered since the first midterm and might appear on Monday's exam. You remain responsible for everything earlier in the course, but the second midterm will lean more towards the newer topics.

- Loops concluded – nested loops (for or while)
- Declarations and scope
    - Declarations with and without initializations
    - Scope rules – class scope vs method scope
    - "this"
- Testing and debugging
    - Invariants – general notion of class invariants, pre- and post-conditions
    - General notion of coupling and cohesion – designing code that does one thing well; information hiding
    - Testing as a controlled experiment
- Main methods – getting programs started
- ArrayList collections
    - Basic methods – add, size, etc.
    - Indexed access vs iterators
    - Using iterators to process a list
    - Type Object and casting
    - Reference vs primitive types
- Comparing objects: .equals method vs ==, .compareTo for Strings.
- Java interfaces
    - Declaring an interface
    - Defining a class that implements an interface – "implements" and what that implies
    - Interface types and class types – using variables and parameters of an interface type