CS W3134: Data Structures in Java

Lecture #2: Java refresher
9/9/04
Janak J Parekh

Administrivia

- Possible recitation times:
  - Thursday - after 5:30p
  - Friday - between 11:00a and 5p
  - Monday - between 9a and 10:45a; after 4p.

Agenda

- Refresher on Java, focusing primarily on OO concepts
  - Will reinforce OO concepts throughout semester, so don’t worry too much
  - To be done on board – these slides aren’t significant
- Start with “Hello World” and build up from there
  - If recitation: intro refresher on using the SDK, I/O, etc.
- Lead up to using data structures
- This is intended to be interactive, not a fixed review, so if you’re unsure of anything, yell!
Java refresher

- Hello world!
  - Explain all keywords in hello world program
  - Variables vs. methods
  - Static vs. nonstatic
- Primitive vs. reference types
  - What’s a reference?
  - equals() vs. ==
  - Assignment differences
  - Example: myInteger wraps a standard int
- Garbage collection

Java refresher (II)

- Static vs. nonstatic
  - Why static methods? Just a convenience convention
- Primitive vs. reference types, continued
  - int vs. Integer
  - Getter/setter methods
  - Wrapper classes
  - When to use wrapper classes? Both inserting into Collections and using static utility methods
  - Garbage collection, reviewed
  - Strings are both? “==” overload
- Packages
  - What does it mean to import?
  - java.util.* or java.*
  - Exceptions
  - Javadoc, books – can’t guarantee board code

Next Time

- Finish up Java refresher/OO concepts
- Start looking at Lists in detail