

Slide 1

Administrivia

- Reminder: Homework 3 code due today. Homework 4 design due Thursday.

Slide 2

Lists — Recap

- List ADT (review):
 - “Values” are lists of elements.
 - Many operations possible — add element, remove element, search for element, etc., etc.
- More than one possible implementation, but a typical one is a “linked list”.
(Write code, including method to remove element.)

Iterators

Slide 3

- Something we often want to do with this and other “container classes” is do something to all elements — i.e., we want a way to visit all elements, in some (or any) order.
- An object-oriented way to address this is to have “iterator” objects with methods to support “visit every element, one at a time”. In Java — `java.util.Iterator` interface. (Look at its methods.)

Iterators, Continued

Slide 4

- To see how this plays out in code, we could define a simple interface for lists, including an iterator, and implement it using arrays.
- Let's do that . . .
(No, it's not a very sensible implementation of the list ADT, but it's one I'm willing to put on the Web as sample code. You'll write a linked-list class as part of Homework 4.)

Minute Essay

- How did the midterm compare to your expectations (length, difficulty, etc.)?

Slide 5