Slide 1

Administrivia

- Homework 4 on Web. Design due Tuesday (10/17), code Thursday (10/19).

Slide 2

Recap — ADTs, Array-Based Stacks and Queues

- Abstract data type — define possible "values", list of operations. Could capture as Java `interface`.
- Stack ADT — FIFO queue.
- Queue ADT — LIFO queue.
- Array-based implementations:
  - Stacks easy, queues somewhat trickier ("circular queue").
  - General approach — decide what variables we need, what they should "mean".
  - Error checking — Java-esque way is with exceptions.
  - Include `main` method for simple error checking.

Slide 3

Lists

- List ADT:
  - "Values" are lists of elements.
  - Many operations possible — add element, remove element, search for element, etc., etc.

    (Also "walk through elements" with "iterator" — next time.)
- Implementation:
  - Using an array.
  - Using a "linked list".

  How do these compare with regard to efficiency of various operations? efficiency of memory use?

Slide 4

Homework 4 Overview

- Start writing code for your game entities. Similar to what you did for player last time.
- Review/revise how you're creating layout for your game. Several options.
- Write replacement for framework `GameEntityList`. This will be a linked list, based on discussion today and next time. You may find it helpful to draw pictures.

Slide 5

Minute Essay

- How did the midterm compare to your expectations? with regard to difficulty, types of questions, anything else.