Administrivia

- Reminder: Quiz 3 Thursday.

- Reminder: Homework 3 design due Thursday.

Slide 1

Abstract Data Types

- "Abstract data type" (ADT) is defined as

    – A set of values.

    – A set of operations on those values.

- In other words — something that stores data (in an unknown form) and provides a standard interface for dealing with it.

Slide 2

Stack ADT

- Value — list of elements.

- Operations — push, pop, "empty?"

- Implementing this? might be a good example of

    – Defining a (generic) interface.

    – Writing a class to implement it (using arrays — for, um, fun? practice?).

    – Working with exceptions.

Slide 3

Queue ADT

- Value — list of elements.

- Operations — enqueue, dequeue, "empty?"

- We could implement similarly to what we did for stacks . . .

Slide 4

Minute Essay

- In the version of `FixedArrayQueue` we wrote in class, we used `if` statements to make the queue "circular" (so that it wraps around in the fixed-size array). You can accomplish the same thing with appropriate use of the `%` operator. How?

Slide 5

Minute Essay Answer

- See the completed version of the code, linked from the "Sample programs" page ([here](#)).

Slide 6