

Queues

What is a queue?

- First-in first-out data structure (FIFO)
- New objects are placed at rear
- Removal restricted to front
- Examples?

Queue ADT Operations

- **enqueue(o)**: Insert o at rear of queue
 - Input: Object; Output: None
- **dequeue()**: Remove object at front; error if empty
 - Input: None; Output: Object removed
- **size()**: Return number of objects in queue
 - Input: None; Output: Integer
- **isEmpty()**: Return a boolean indicating queue empty
 - Input: None; Output: Boolean
- **first()**: Return object at front without removing; error if empty
 - Input: None; Output: Object