

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