

# Queues

Goal: Can implement a queue using a circular array and a linked list

## Problem Description

You will be creating two queue classes. One implemented with a circular array and one with a linked list.

- You can use your generic node class for the linked list implementation or create a new class.

## Driver Class

Create a driver class to test your queues.

## LinkQueue Class

Use the following UML to create a linked list implementation of a queue.

| LinkQueue<E>  |
|---|
| -head:Node<E><br>-tail:Node<E>  |
| +LinkQueue()<br>+enqueue(E):void<br>+dequeue():E<br>+peek():E<br>+isEmpty():boolean |

## ArrayQueue Class

Use the following UML to create a circular array implementation of a queue.

| ArrayQueue<E>   |
|---|
| -data:Object[]<br>-head:int<br>-manyItems:int   |
| +ArrayQueue(int)<br>+enqueue(E):void<br>+dequeue():E<br>+peek():E<br>+isEmpty():boolean |