

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

ArrayQueue Class

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

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