What are queues?

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- Like stacks and lists, queues represent a series of ordered objects, but the way we access, add and remove items is slightly different. If you think of a queue at an amusement park or a line of people at a store, a queue has a front and a back, and it works the exact same way in code. It is designed to have elements inserted at the end of the queue and elements removed from the beginning of the queue. When people stand in a line, the first person that gets in the line is the first person out of the line, and the last person that gets in the line is the last person out of the line. We say queues follow a FIFO or first in, first out policy for this reason. Some important terminology to keep in mind is engueue and dequeue. When we add an item to the queue, we say we engueue the item, and when we remove an item from the queue, we say we dequeue the item. Similar to stacks, we can peek or see the first item in the queue, also known as the next item to be dequeued, without the removing it from the data structure. Just like stacks, we implement queues with a list and limit how we operate on this data to create this data structure. In this case, we should be able to add to the back, remove from the front and access the first item without removing it. Once you understand the terminology, we can begin to put queues into practice.