Queue and Iterator

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- **size** how many are in the queue?

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Have a look at the Queue interface.

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“A Queue implementation that extends this class must minimally define a method Queue.offer(E) which does not permit insertion of null elements, along with methods Queue.peek(), Queue.poll(), Collection.size(), and a Collection.iterator() supporting Iterator.remove(). Typically, additional methods will be overridden as well. If these requirements cannot be met, consider instead subclassing AbstractCollection.”

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Can you write it?

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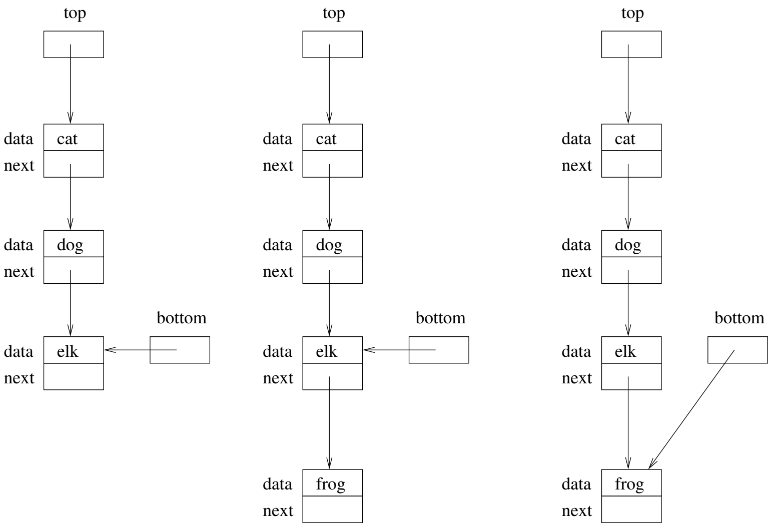
- Offer on a non-empty queue adds a new Node below **bottom**.
- and sets **bottom** to the new Node.

LinkedQueue offer



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- which takes $\mathrm{O}(n)$ time?

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- 0:Victor 1:Irina 2:Parul 3:Joe 4:null

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Serve Victor and then Irina.

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- For the sake of clarity, I will set those locations to null,

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- but I don’t really have to.
- Actually, what I do is set first=2 and size=2.

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- Lance arrives.

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- Philip arrives. Alex arrives.
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- Notice that we take the opportunity to put the first person in chair 0.

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- Also known as a RING BUFFER.

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- that does not depend on the implementation.

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The Iterator "deconstructs" these for-loops.

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