Subject: Priority Queue
Posted by ksfoster on Sun, 06 Nov 2016 19:52:15 GMT

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I am a little confused on what data structures we are using. We are implementing a priority queue using a binheap as a basis correct? Which means we need a queue class and a binheap class? The queue itself is being implemented with a circular doubly linked list right? So there is no separate linked list class that just goes in our queue class right? Or...

Subject: Re: Priority Queue
Posted by btindow on Sun, 06 Nov 2016 21:37:22 GMT

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We are using a binomial heap to implement a priority queue. Our binomial heap will comprise of Nodes. Each node will also have a list of children beneath it which we will keep track of by using a circular doubly linked list.

I may be wrong, but I don't believe we need a queue for this project. Our binomial heap is capable of implementing a priority queue by storing the highest priority Node in the root list. We can also perform extractmin, decreasekey, and delete within our binomial heap.

Subject: Re: Priority Queue
Posted by btindow on Mon, 07 Nov 2016 20:47:21 GMT

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Maybe we need a queue, but I don't think we need one for the binheap part.

Subject: Re: Priority Queue
Posted by lusth on Tue, 08 Nov 2016 18:07:22 GMT

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As mentioned in class, a priority queue is a poor name for that data structure. You could call it a priority stack just as easily, since a priority queue is not really a queue. A priority queue supports the operations insert and extractExtremes, which are easily implemented with a heap's insert and extractMin operations, respectively.