Topic 3 Discussion 2

What is a priority queue? Create a Loom video in which you describe a possible scenario where a priority queue might be used. Try to describe a possible implementation. Paste the link to your video here. Your video should not exceed 2 minutes.

Priority Queue is more specialized data structure than Queue. Like ordinary queue, priority queue has same method but with a major difference. In Priority queue items are ordered by key value so that item with the lowest value of key is at front and item with the highest value of key is at rear or vice versa. So we're assigned priority to item based on its key value. Lower the value, higher the priority. Following are the principal methods of a Priority Queue.

Basic Operations

insert / enqueue − add an item to the rear of the queue.

remove / dequeue − remove an item from the front of the queue.

A PriorityQueue is used when the objects are supposed to be processed based on the priority. It is known that a [Queue](https://www.geeksforgeeks.org/queue-interface-java/) follows the First-In-First-Out algorithm, but sometimes the elements of the queue are needed to be processed according to the priority, that’s when the PriorityQueue comes into play. The PriorityQueue is based on the priority heap. The elements of the priority queue are ordered according to the natural ordering, or by a Comparator provided at queue construction time, depending on which constructor is used.