

Team JAWs (Jacob Kirmayer, Ari Gurovich, William Vongphanith)

APCS1

HW98 – Queued for deletion on 12 systems

2022-05-13

Time spent: 0.5 hrs

Priority Queue Game Plan

- Our ArrayList-based priority queue will contain an ArrayList of PriorityQueueItem objects (for scalability, and what if you wanted to modify the priority of an item while it is in the queue?)
- PriorityQueueItem objects will:
 - Store a value (of any data type) and a priority (an int between 0 and 65535, or a short, I was thinking about DNS priorities here)
 - getValue, setValue (do exactly what you think they do)
 - getPriority, setPriority (sets and gets the priority)
- Add function acts normally, dumps new items to the end of the ArrayList
- Remove
 - Traverses the ArrayList of PriorityQueueItems finding the one with the highest priority
 - Uses ArrayList.remove() to remove from queue and return it
- Clear function runs as intended (as you can do on an arraylist)
- Contains runs as intended (but scans over the values of the items, not the whole object)
- Peek
 - Find the item with biggest priority and return it without removing it
- Size works as intended
- toArray just calls toArray on the internal arraylist