

Lab Goal : This lab was designed to teach you more about Heaps and Priority Queues.

Lab Description : Create a class of your choosing that stores some data you cook up. The class must implement Comparable as it will be stored in a PriorityQueue. Instantiate and store at least 10 Objects of the type you create. Print out the 10 Objects in ascending order using the Min Heap setup of the PriorityQueue. The Java PriorityQueue is a minimum heap where the smallest value is always the first one removed.

Sample Data and Output (this output would apply if you were storing Monster):

How many monsters did you wish to enter? :: 8

Enter the ht :: 1
Enter the wt :: 1
Enter the age :: 1

Enter the ht :: 2
Enter the wt :: 2
Enter the age :: 2

Enter the ht :: 1
Enter the wt :: 2
Enter the age :: 3

Enter the ht :: 3
Enter the wt :: 2
Enter the age :: 1

Enter the ht :: 2
Enter the wt :: 1
Enter the age :: 3

Enter the ht :: 2
Enter the wt :: 3
Enter the age :: 1

Enter the ht :: 3
Enter the wt :: 1
Enter the age :: 2

Enter the ht :: 3
Enter the wt :: 3
Enter the age :: 3

[1 1 1, 2 1 3, 1 2 3, 3 2 1, 2 2 2, 2 3 1, 3 1 2, 3 3 3]

getMin() - 1 1 1
removeMin() - 1 1 1

[1 2 3, 2 1 3, 2 3 1, 3 2 1, 2 2 2, 3 3 3, 3 1 2]

getMin() - 1 2 3
removeMin() - 1 2 3

[2 1 3, 2 2 2, 2 3 1, 3 2 1, 3 1 2, 3 3 3]

Files Needed ::

YourPQ.java
Lab18b.java