Project 4 README (Recursive Max Heap Implementation)

The HeapTester.java file can be run as is to showcase the Heap class’ functionality. It will test it by inserting the number 1 – 1,000,000 in a random order into the heap, then immediately showcasing the findMax(), height(), size(), and extractMax() functions by removing all nodes from the heap (in order from greatest to least).

The HeapSorter.java file can be run as is but requires user input. The user can enter any number of strings (separated by a newline) and they will be inserted into the heap in the order that the user enters them (reordered automatically by the heap of course). Then, once the user is done entering in values (stored as strings) they can enter a blank line to symbolize to the program that they are done. The program will then print out each node in order (greatest to least).

From my tests, I believe that everything works properly, but please note that sorting within the HeapSorter.java file is done via strings using the .compareTo() method. Therefore, sometimes things are ordered a bit different that some might think they should be (for example “9” > “123” as strings).