EE3980 Algorithms

Homework 2. Heap Sort

Due: Mar. 17, 2019

Theoretically `heap sort` is one of the fastest algorithm of all the comparison-based sorting techniques. In this homework, please implement a heap sort function as the following:

```
void HeapSort(char **list,int n);
```

and compare its performance to those four sorting algorithms in Homework 1.

The same set of inputs, `s1.dat - s9.dat`, and the same measurement method as hw01 should be used. In this homework, however, please rearrange the inputs such that the best-case and worst-case performance can be measured and correlate to your best-case and worse-case analyses of all 5 algorithms.

Notes.

1. One executable and error-free `C` source file should be turned in. This source file should be named as `hw02.c`.
2. A `pdf` file is also needed. This report file should be named as `hw02a.pdf`.
3. Submit your `hw02.c` and `hw02a.pdf` on EE workstations using the following command:

   ```
   $ ~ee3980/bin/submit hw02 hw02.c hw02a.pdf
   ```

   where `hw02` indicates homework 2.
4. Your report should be clearly written such that I can understand it. The writing, including English grammar, is part of the grading criteria.