

Runsor Report

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Tests

We have run our sorting algorithm on the following inputs from the book; all were sorted: `tiny.txt`, `words3.txt`. We have also created our own input files containing 1000, 10000, 100000 and 1000000 random uppercase letters. These all seem to be sorted.

Extensions

Our implementation switches to insertion sort for sequences of length at most 8. We performed test with and without this extension for random inputs of size 1.000.000, but we were not able to detect any improvement in running time. Actually it seems as if the extension slows down the sorting in most cases.

Issues

Our current implementation does not handle input very well. If for example you insert a bunch of numbers, it will read 44 as being lower than 5. Likewise, while sorting letters there are issues. If we input `a b c AA BBB CC` the output will be `AA BBB CC a b c`. The expected behaviour is that `BBB` is either bigger or smaller than any of the other strings depending on how you compare them. It will work on equally sized strings, but once you start messing with the input this implementation of the runsort algorithm starts acting with odd behaviour.