

Systems Programming: Assessed Exercise — One of Two

2366908I

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1 Preamble

In the submission, two files are composed: *tldlist.c* and *date.c*. Both files construct the methods as laid out in their respective header files. For *tldlist.c*, a series of helper functions are also defined in order to aid in recursion of the tree especially as the header functions, at least most of which, act on the *TLDList* type, instead of the starting root *TLDNode*. The helper functions are under a clear multi-line comment, which describes the section as composing of such.

2 Operating the program

There are no deviations in how to run the program compared to the instructions laid out in the original (Microsoft Word) task sheet.

3 State of the program

The program's AVL implementation works for the most part. When running: `./tldmonitor startdate enddate file.txt`, the program correctly purports the TLDs and the corresponding percentage of representation in the text file. However, when run with the command as noted in the footnote of the task sheet, that should not return an output, it still does so only for the *large.txt* due reasons unbeknownst, but likely trivial. At large, the logic of the program is intact and does what is intended.

3.1 Memory management

When run with Valgrind for both test files, no memory leakages are reported nor are made possible.