Report: Systems Programming AE 1 😊

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My code works perfectly fine as tested on my local computer and stlinux servers. **date.c** file has an additional helper function with the **tldlist.c** having 10 new helper functions to aid with how I have gone ahead with the 3 structures defined in the spec.

```
-bash-4.2$ valgrind ./tldmonitor 01/01/2017 01/09/2020 <large.txt | sort -n | diff - large.out
==22954== Memcheck, a memory error detector
==22954== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==22954== Using Valgrind-3.14.0 and LibVEX; rerun with -h for copyright info
==22954== Command: ./tldmonitor 01/01/2017 01/09/2020
==22954==
==22954==
==22954== HEAP SUMMARY:
==22954==     in use at exit: 0 bytes in 0 blocks
==22954==   total heap usage: 17,570 allocs, 17,570 frees, 150,779 bytes allocated
==22954==
==22954== All heap blocks were freed -- no leaks are possible
==22954==
==22954== For counts of detected and suppressed errors, rerun with: -v
==22954== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
```

Figure 1. Test with valgrind for memory leaks and the report shows none.

I have also tested **tldmonitor** with 16million tld entries and it seems to have worked perfectly fine.