Assignments for UCLA Computer Science 35L, Fall 2017

[35L home]

Most assignments are divided into two parts: laboratory exercises and homeworks. Laboratory exercises are expected to be done in the lab session, that is, the week before the assignment is due. You are expected to take lab notes in the form of a log of your actions that contains enough information so that others can reproduce your work.

The last assignment (assignment 10) is special. It is a research and development assignment, where you are expected to do a brief research report and make a presentation to others in the lab. Your instructor will coordinate with you about scheduling your presentations. The material presented is considered to be part of the course and may appear on the final exam, so pay attention to everybody's presentations!

Submit your assignments electronically on <u>CCLE</u>.

You are expected to do your homeworks by yourself. You can share ideas and discuss general principles with others in the class, but all the code and writings that you submit must be your own work; do not share them with others. Please see <u>Grading</u> for more details. Consult a TA or the instructor if you have any questions about this policy.

Typically, labs and homeworks are done on GNU/Linux based systems running on your own computer, either natively or in a virtual machine. In some cases, though, they are done on the SEASnet GNU/Linux servers. In these cases, take care to not run commands like <u>su</u> and <u>sudo</u> that would make it appear to the system administrators that you might be trying to break into the system.

Any programs that you write must <u>behave robustly</u>. Among other things, this means they must avoid arbitrary limits on the length or number of any data structure, including symbols, strings, and line length. It is OK to impose a non-arbitrary limit, e.g., because your computer runs out of memory or because of the limited range of the C <u>ptrdiff_t</u> type, but it is not OK to impose an arbitrary limit, e.g., a limit of at most 255 bytes in a line.

Please stick to coding styles used in the course material rather than inventing your own style, as this saves work for the grader.

Assignments are due by 23:55 on the specified date (i.e., five minutes before midnight at the end of the day).

Assignments 2–9 and their schedule are tentative. Before the week that each of these assignments is to be done, these assignments might change. Any such changes will be noted in the <u>news</u>.

due assignment

2017-10-06 1. Getting to know your system

2017-10-15 2. Shell scripting

2017-10-22 3. Modifying and rewriting software

2017-10-29 4. C programming and debugging

2017-11-05 <u>5. System call programming and debugging</u>

2017-11-12 6. Multithreaded performance

2017-11-19 7. SSH setup and use in applications

2017-11-27 <u>8. Dynamic linking</u>

2017-12-03 9. Change management

2017-12-08 10. Research and development in computing (No late submissions allowed for this assignment.)

Please see the grading policy for how assignments are treated when late.

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