

COSC 345 Year-Long Project 2019

BACKGROUND

The COSC345 year-long project is normally based around a theme rather than being prescribed. Those themes have changed from year to year and have ranged from watch apps through, to operating system shells, and to disability support apps. This year's theme is "small is beautiful". That is, you get no more than 1,000 lines of code to do whatever you want.

REQUIREMENTS

You **must** form teams of 3 or 4 people (no more, no fewer). You **should** do this by the end of week 1
You **must** use no more than 1,000 lines of code (excluding your test harnesses, etc.), counted with `wc`
All code you write **must** be in C or C++ (excluding your test harnesses)
You **must** use a **standard** layout (https://en.wikipedia.org/w/index.php?title=Indentation_style&oldid=867941392)
Your program **must** run on MacOS, a GUI is **not** required (but is permitted)

During semester 1 you will design your program, and start implementing it, and deliver an alpha. During semester 2 you will finish your program, feature add, and test it.

DELIVERABLES

You will submit your assignments by emailing me a public github.com URL along with the tag name of the version you wish to be marked. I will build your program from its source code and I will test it – so be sure to tell me how to: (a) build your program, (b) run your test harnesses, (c) run your program.

Assignment 1 (10%)

8th April 2019

Deliver a written report on: What you are going to build, who is going to build it, how you are going to build it, how long it will take to build, which standard layout you are going to use, what else there is that already does what your program will do, and how your program differs from those that do a similar task.

Assignment 2 (10%)

27th May 2019

Deliver a working alpha release of your program along with developer documentation that I can use to understand your program as if I was a new member of your team.

Assignment 3 (10%)

Approx. week 4 of semester 2

Deliver a working beta release of your program along with developer documentation that I can use to understand your program as if I was a new member of your team.

Assignment 4 (10%)

Approx. week 12 semester 2

Deliver your finished, working, debugged, program along with user documentation (a man page?), and maintenance documentation that can be used by a new member of your team who will maintain your program into the future. Try to get as close to the 1,000 lines as you can by adding features (and without violating your source code layout standard).

NOTE

There will be a (tiny) prize for any groups that use exactly 1,000 lines of code while not padding their programs with white space or unnecessary comments (or violating their coding guidelines). Be sure to tell me how to count your lines of code (i.e. which files are part of your program and which are not (such as test suite and makefiles)).