

EECS 338 – Final Project

Phase	Points	Due at 11:59 PM	What to Submit
Proposal	10	Tue, Nov 22	Typed answers to posted questions (Word or text file)
Beta Version	30	Tue, Dec 6	Zip file of all necessary files, including makefile(s)
Presentation	(+10)	Nov 29 – Dec 8	Slides or outline of presentation
Final Version	60	Tue, Dec 13	Zip file of all necessary files, including makefile(s)

Note: For groups of 2, *both* group members must submit each item with *separate* progress reports.

General instructions: You can work by yourself or in a group of 2 people. (A group of 3 may be allowed with advanced permission only.) The final project is worth 10% of your grade for the course. You will write an application of your own choosing. The project must agree with the accepted proposal, and major design changes after the proposal must be approved. The workload is expected to be approximately 20 hours per person. For a group project, both students will generally receive the same grade, except in cases of unequal effort. The project must focus on one or more of the following topics regarding operating systems:

1. Process management (including process synchronization).
2. Parallel computing.
3. Memory management (see textbook).
4. Storage management (see textbook).
5. Protection and security (see textbook).
6. Cluster administration (using the Yelp cluster, special permission required).

Other relevant topics may be permitted if approved *in advance*. Projects can be developed on personal computers, but they must also be compiled and demonstrated on either an eecslinab server or the HPCC. You may use any programming languages you wish.

Development Phases (see due dates above)

1. *Proposal (10 pts)*: Submit a typed document with your name and answers to the questions below (1 page maximum). You will be graded based on clarity and completeness. The design of your application can be changed later, but any significant changes should be approved by the instructor and accompanied by a revised proposal. If you are in a group, both group members must submit this.
 - a. Do you have a partner? If so, who is it?
 - b. Briefly describe your project, its purpose, what input it uses (if any), and what output it produces.
 - c. Which of the allowed topics does it cover (process management, etc.)? Explain.
 - d. Will you use any specialized code written by someone else? If so, explain. Note that software from other sources can be used but does not count toward the requirements.
 - e. Will you be using the Case HPCC?
2. *Beta Version (30 pts)*: In the software industry, “beta” indicates a version that is ready to be tested outside of the company (http://en.wikipedia.org/wiki/Software_release_life_cycle). Yours is allowed to be quite worse than a typical beta. Your submission should include the following:
 - a. A typed design document that provides a description of all files, major data structures, and sample output (console or data file).
 - b. All files, including program and data files. These are not required to be functional, but comments should be inserted where necessary to explain significant parts of the program.
 - c. All major data structures such as arrays, synchronization variables, etc. These are not required to be used, but they should be declared in the appropriate places.
 - d. Demonstration of any output (console or data file). This can be “mock” output that is generated artificially.
3. *Final version (60 pts)*: This submission should be complete. Be sure to simplify the application if your original ideas are not working. Include a typed design document that provides a description of all files,

major data structures, and output (console or data file). *Note: do not use more than 10 MB of support files because these may be difficult for teaching staff to download.*

4. *OPTIONAL: Presentation (+10 pts):* This part is optional and is equivalent to 1% of your grade for the course. Either demonstrate your program or present a design plan describing its features and showing at least one screen shot (actual or hypothetical). Presentations should be approximately 5 – 10 minutes in duration. A signup form will be provided, and advanced registration will be required.