CS246E—Final Project—Self-Proposed Option (Fall 2023)

B. Lushman

Proposal due: Wednesday, November 15, 5pm
All other due dates, follow the published project guidelines.

For the final project of CS 246E, you will have the option of proposing your own project to work on. All projects must be approved in advance by your instructor. If your project is not approved, you may be given the option of amending it, or you can work on one of the provided project specifications.

If you wish to work on a project of your own design, you will need to submit a written proposal by the deadline stated above. The intent is that you will receive feedback relatively quickly on whether you can proceed.

Any project you propose must satisfy the following requirements:

- It must have a similar scope to the provided projects, and be a comparable amount of work.

- It must not be a project you have previously worked on, either for marks or on your own.

- It cannot be substantially similar to any of the provided project specifications. A project in the same problem domain may be fine, subject to approval.

- It must involve a non-trivial exercise in abstraction, where the entities and relationships within the project either don't trivially fit well with the abstraction mechanisms we've considered, or where there will be significant choices to be made with tradeoffs on both sides.

- It must be compilable and runnable in the student environment.

- It must be solved in C++.

The proposal you submit must contain the following elements:

- A description of the project.

- A description of the abstraction problems that exist within the proposed project, including why they are difficult to solve. This should be part of a larger justification that the proposed project is of a similar scope to the provided specifications.

- A proposed marking scheme for the project demo. You should list at least 50 deliverables, each worth one mark, that the grader can look for during your project demo. These should range from the very trivial (e.g., that a particular command works) to substantially more challenging goals. You are allowed to designate a few goals as to be ambitious enough to be worth two marks (keeping the total at 50), but these should be small in number. Elements of the marking scheme related to crashing, leaking, etc., will be provided by us; you will not supply these.

If you choose to do a self-directed project, you may post it publicly for the purpose of showing it to potential employers; we also reserve the right to include it, or something like it, as a potential project, either optional or mandatory, for future students.

The published project guidelines, which have been written to support the other project options, apply here too. In particular, you will have the opportunity to earn extra credit for going beyond your proposed project's scope. However, you need to complete your required elements first, and you may not exchange one requirement for another without obtaining permission.