6.110 Computer Language Engineering

Course Information

February 5, 2024

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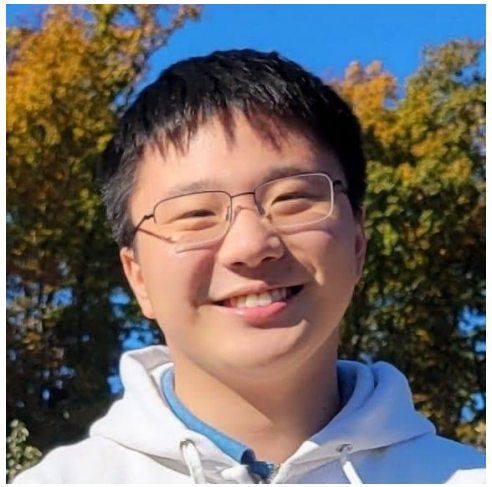

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6110-sp24.github.io

Resources

- Course website
- Piazza
  - Used for Q&A and announcements.
- Gradescope
  - Used for quizzes and weekly participation.
- GitHub organization (on github.com)
  - Hosts class tools and project repos.

Compiler project (75%)

- Compiler for *Decaf*, which is a subset of C.
- Split into 5 phases, 2-3 weeks each.
  - 1: lexing + parsing
  - 2: internal representation + semantics
  - 3: code generation
  - 4: dataflow analysis
  - 5: register allocation + optimizations
- Phase 1 individual, phases 2-5 in groups of 3-4.
- Phase 1 will be released **Friday, February 9.**

Class meetings

- MWF 11-12 and TR 12-1 in 32-124.
  - Mondays to Thursdays will be *lectures*.
  - Fridays will be *recitations* (focus on projects).
- Towards end of each project phase, there will be few/no lectures.
- **Check the class schedule regularly.**

Re-lectures

- If you are unable to attend lectures, we plan to offer weekly *re-lectures*, which will be a condensed version of the whole week's lectures.
- If you are interested, please indicate your weekly availability in the first weekly check-in form on Gradescope.

Quizzes (20%)

- Two quizzes, each worth 10%.
- Quizzes will be during class time on **Friday, March 15**, and **Friday, May 3**.

Participation (5%)

- Weekly check-in forms
  - We'll ask about your progress on the project.
  - This is to help you stay on track.
- "Mini-quizzes"
  - Cover lecture content.
  - Graded on completion, for you to check your understanding.

Office Hours

- We expect to have around 6 hours of OH per week.
- OH schedule will be announced soon.

Collaboration policy

Allowed:

- Discussing high-level approaches to the project
- Reference material, libraries, etc. available online, *as long as they don't trivialize the project*
- Using LLMs to generate code
- Collaboration on miniquizzes (but write solutions individually)

Not allowed:

- Sharing code with other teams
- Posting project code or miniquiz solutions in a publicly accessible location, including public GitHub repositories.

LLM policy

- Usage of LLMs will have no effect, either positive or negative, on your grade.
- You are encouraged to try to use LLMs to generate code in your project.
- If you use LLMs, please explain your approach to using LLMs in project reports.
- Document your use of LLMs in LLM code usage surveys, due two days after each project phase deadline.

Coming up soon:

- First check-in form (more of a survey) is up on Gradescope.
  - Please submit this by **Thursday, February 8**, so that we can add you to the GitHub organization before class on Friday.
- Phase 1 (lexing + parsing) of the project will be released **Friday, February 9**.

Coming up soon:

Mon 2/5	Tue 2/6	Wed 2/7	Thu 2/8	Fri 2/9
Lecture Introduction	**Lecture** Regular expressions	**Lecture**	**Lecture**	**Recitation** Project setup and overview
			Weekly check-in form 1 due	**Project phase 1 release**