# CS370 – Final Project

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**Final Project –** Below I list three possible project directions. If you have another project direction that interests you, please propose your idea to me by Friday, 17 Apr.

1. Design and implement your own language. Your language should be a “domain-specific” language to keep the scope manageable. Existing examples include SQL and RobotScript. You could design a scripting language for hardware such as mobile phones, iPods, or coffee makers. It could be a scripting language to automate the strategy of players in a game (such as monopoly or battle ship), so multiplayer games can be played single player (or zero player). You could also design a language to improve testing automation.  
   **Final deliverables** are the source code, language documentation~~, and a 5-minute video presentation~~.
2. Enhance an existing language with a major feature that you’ve learned about in another language. Examples include: “Dynamic C++” – that is, a light C++ interpreter that behaves similarly to Pharos and Squeak; a profiling tool for some language; Cross-language development tools that allow programmers in one language to use libraries developed in another language (maybe translate COBOL to C#?).  
   **Final deliverables** are the source code, tool/feature documentation~~, and a 5-minute video presentation~~.
3. Research a new language, using principles discussed in class. Example languages include: MetaML, Lua, StreamQL, and PADS/ML. The language should be one proposed in scholarly literature, and not a “popular” language. Good sources for such research are conferences such as POPL (<https://popl20.sigplan.org/>), OOPSLA (<https://2019.splashcon.org/>), and LCTES (<https://conf.researchr.org/home/LCTES-2019>).   
   **Final deliverables** are the research paper, a small sample application (your proposal) ~~and a 5-minute video presentation~~.

**Project deliverables**

1. 17 Apr. – short paragraph describing your project.
2. 27 Apr. – one-page paper that describes project status, current struggles, and next steps.
3. 15 May – **Final deliverables** for your project (see above)