

CS 252:

Advanced Programming Language Principles



Projects

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Three kinds of projects

- Survey
- Programming project
- Research paper
 - survey & programming

Pick your own project.

I'll pick one for you if you like...

... but you might not be happy with it.

Expectations

- One partner, optional.
- Final report: *approximately* 7-10 pages.
 - Surveys should be closer to 10.
- 10-15 minute presentation.
- **If you miss any deadlines, you get a **ZERO** on that portion of your project.**

Schedule

- Include a schedule for your project in your proposal.
- Break items out to the weekly level.
- Be as concrete as you can.

The survey project

- Pick an area of interest
 - concurrency primitives
 - type inference
 - cloud / bigdata / mobile / ...
- See POPL, PLDI, or OOPSLA proceedings for inspiration.

Survey project (continued)

- Read (at least) 6-8 papers
 - 2-3 thoroughly
 - 4-5 more for additional background
- Questions you should address
 - What are the basic problems in this area?
 - What are the approaches to solving them?
 - What are the main achievements so far?

Implementation project

- Implement
 - small language, or
 - algorithm related PL design, or
 - something interesting to you
- How much code?
 - 100 lines is probably too small
 - 10,000 is probably too big

Research project

- Survey of latest research in an area
- Implementation related to research
- Challenging – PL enthusiasts only
- Potentially good basis for thesis