Meeting 9: Register Allocation

Announcements

- Exercise 2 due Thursday before class
- HW3 due Friday 9/29

HW1 Comments

Hours spent: mean 11.9 hours, stdev 6.2, median 10
How hard (out of 6): mean 3.8, stdev 1.1, median 4

- "It took a while to get started in any kind of productive way. ... After a while I understood why. I had a lot of fun implementing the compiler. It struck a really good balance of being challenging but very doable"

- "I really like the freedom this class gives for how to design the compiler, but some nudges towards a reasonable setup would be nice so we don't dig ourselves into a hole."

- "Just implementing it -- conceptually the assignment was easy to think about, but it was tedious to implement, and our own syntax bugs were the main issues we came across"

- "I like the discussion based aspect so far, however, I would like if Chang would cover either important info, or something really interesting in compilers/compilers research for the first 5 mins of class."

- "I found the design process to be the most difficult. It's not coming up with a solution that was difficult, but what solution will be best and scalable for future homework"
"To be honest, the logistics of this course has been difficult for me. Managing Piazza, the moodle, git, getting the right VM going, and submitting the right things in the right places requires a lot of concentration and careful work. I'm hoping I'll get more familiar with how to keep track of everything as the course continues."

"The hardest piece was making the mental hurdle to get the recursive flattening function to work. Recursion is always a mental leap, and having to also be creative with the structure and implementation made things a bit more challenging."

"It took a long time to understand how to code flattening. I like how hard the course is."

"I had trouble going from the theoretical of understanding how to flatten trees and the meaning of all this to the actual implementation of it"

"It was confusing for the first 1.5 weeks...."

"It was a very open ended assignment which seemed to be very intimidating"

"Getting Cog to work :)"

**HW2 Comments**

Hours spent: mean 8.5 hours, stdev 6.2, median 7
How hard: mean 3.3, stdev 1.0, median 3

"I found debugging to be the hardest part. In particular, I was struggling with getting the lexer to correctly detect variables vs. print/input/ints."

"Figuring out precedence was challenging. I still find the parse tables (and shift-reduce conflicts) challenging. Getting started wasn't as hard this time, since we were familiar with the language and there was some code in the course notes to help get us started."

"I am also concerned about the emphasis on participation... obviously distance students are disadvantaged on this front, and since many of us work full-time, we often get to the party late in terms of asking specific questions on Piazza; they are already asked & answered, so our ability to participate is more limited."

"I'm still having trouble running the tests in the shared test repo. That's a big time drain." - please come see us!
Questions

1. DSATUR - terminology
2. caller-saw registers (Chandy calls)
3. Where does register assignment actually happen?
4. What libraries write graphs are ok?
5. Parse tables