

Programming Languages
Jan 23
PAL Workshop

This is an in-class workshop for the PAL assignment. Goal: learn the assembly language sufficiently well to do a basic analysis of program correctness. Today will be brainstorming for the project – talk to your classmates and offer suggestions. The rest of the project will be done on your own.

Workshop phases

1. Discuss strategies for learning a new (full-blown, not mini) assembly language. What, if anything, is different from strategies for learning a high-level language. Come up with some programs that would be good to write when learning the new language.
2. Review the language specifications.
3. Write a couple of your programs in the PAL language. You may need to simplify them since the language is so limited. Make sure you understand how the various instructions work and interact.
4. Read the specifications for the project; ask questions on anything that's unclear. Discuss them with a classmate.
5. Create a project schedule for yourself. Start by listing the main tasks you will need to do, then schedule those across the next two+ weeks (e.g., plan to finish early), with your estimate of the time needed for each. Make a copy of this schedule (take a picture?) and hand in the schedule to me at the end of class. Update your schedule as the project continues, especially keeping track of actual time on each activity. You won't be handing in the schedule, but you will discuss it in the project cover letter.
6. Starting with the project outline in the specifications, develop a more detailed outline to be used for a stubbed version of the program.
7. Create one PAL program with multiple errors (annotated), to be used during development.
8. If time allows, start thinking about the logic for particular errors that you will check.