Administrivia

Slide 1

- Thank you all for cooperating with my request about subject lines on e-mail. It really does help me! (E.g., I ask my e-mail program to just display messages with "video" in the subject line and then putting them in the right place for grading is easy.)
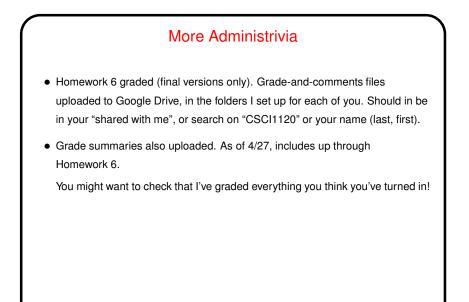
- Homework 6 sample solution posted.

- Reminder: Homework 8 due this week.

- Reminder: Homework 9 due May 8 (a week from Friday).

- Not-accepted-past deadline for all homeworks, video-quiz responses May 12. Also, if you missed an online class, you can get the attendance point(s) for it by watching the recorded class and sending me answers to the minute essay — if you do so by that same deadline.

More Administrivia

Slide 2

- Sometimes ACM tutors are not be available after last day of class. I'm not sure how that will work this semester. I'll find out and let you know by e-mail.

- I'm planning to do virtual office hours a few times during reading days and finals. Times TBA. I'll ask about preferences in the minute essay and let you know my plans by e-mail.

- Also keep in mind that while even Zoom meetings can be a bit problematical for me, I'm generally very willing to try to help by e-mail! Do keep in mind that if you have a question about code, it helps a great deal to send me what you have!
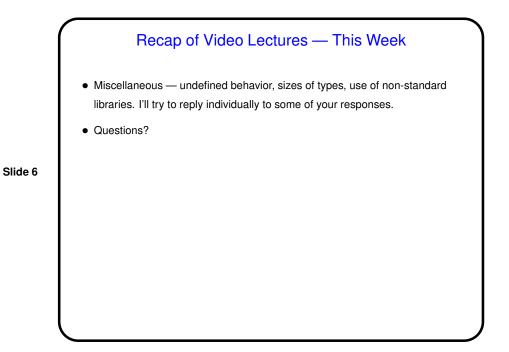
Slide 3

More Administrivia

- Homework 6 graded (final versions only). Grade-and-comments files uploaded to Google Drive, in the folders I set up for each of you. Should in be in your "shared with me", or search on "CSCI1120" or your name (last, first).

- Grade summaries also uploaded. As of 4/27, includes up through Homework 6.

  You might want to check that I've graded everything you think you've turned in!

Slide 4

More Administrivia

- I'm still not entirely sure what to do about late penalties, given the situation. My idea is to apply them to work that was due before spring break, but greatly reduce or even eliminate them for work due after that. So:

- *If you turn in work late,* and you feel that your situation is such that you couldn't reasonably turn it in on time, please explain when you turn it in, and I will take that into consideation.

- *If you can't meet the final deadline of May 12 but think you could turn in work that week,* please let me know. I don't want to just extend that deadline for everyone since I do have a deadline for turning in grades, but I can make a few exceptions.

- Questions?

Recap of Video Lectures — Last Week

- Sorted linked list of integers in C.

- Questions? (Many people, though not all, had seen linked lists in another course, and some had implemented them.)

Slide 5

Recap of Video Lectures — This Week

- Miscellaneous — undefined behavior, sizes of types, use of non-standard libraries. I'll try to reply individually to some of your responses.

- Questions?

Slide 6

Homework 9

- Homework 9 asks you to complete an implementation of binary search trees, as discussed (in part!) in this week's video lectures. Not easy, *but* I think very doable. My intent is that you can use my sorted-linked-list code as something of a model, since a lot about the interface is similar (for example, the "print" function).

Slide 7

- Part of the goal of the assignment is to give you more practice working with pointers, which I think is a key take-away for those continuing into Data Abstraction. Something to consider if it seems tempting to just skip the assignment?

Just For Fun — "Extreme" ASCII Art?

- Some of you may have heard of "ASCII art"? a truly over-the-top example, from quite a while ago, can still be found, via

  `telnet towel.blinkenlights.nl`

  (to interrupt control-] then "quit" or control-d — although this doesn't seem to work in a terminal window??)

Slide 8

  (The above *may* work in other UNIX-terminal-like environments. Try it, and then maybe do a Web search on the command or the site?)

- (What some people choose to do with their time can be — interesting?)

Slide 9

Quotes of the Day/Week/?

- From a key figure in the early days of computing:

  "As soon as we started programming, we found to our surprise that it wasn't as easy to get programs right as we had thought. Debugging had to be discovered. I can remember the exact instant when I realized that a large part of my life from then on was going to be spent finding mistakes in my own programs." (Maurice Wilkes: 1948)

- From someone in a discussion group for the Java programming language:

  "Compilers aren't friendly to anybody. They are heartless nitpickers that enjoy telling you about all your mistakes. The best one can do is to satisfy their pedantry to keep them quiet :)"

Slide 10

Course Topics — Recap

- Basic C programming, for people who already know how to write programs in some other language. Especially useful (I think!) for those who start in a very abstract/high-level language.

- Review of the Linux/UNIX command-line environment and command-line development tools.

- Review of basics of computer arithmetic and data representation. A little more about floating-point representation.

Slide 11

Why Learn C? (For Java/Python/Scala Programmers — Recap)

- Scala and Python (and Java, less so) provide a programming environment that's nice in many ways — lots of safety checks, nice features, extensive standard library. But they hide a lot about how hardware actually works.

- C, in contrast, has been called "high-level assembly language" — so it seems primitive in some ways compared to many other languages. What you get (we think!) in return for the annoyances is more understanding of hardware — and if you do low-level work (e.g., operating systems, embedded systems), it may well be in C. (Performance *may* also be better, though "measure and be sure".)

Slide 12

Minute Essay

- What times of day work best for you for office hours? Any particular days?

- I'd be interested in one more round of comments on (1) how this remote-learning thing has been for you, and (2) how you've all been coping in general.

- Course evaluations:

  The online equivalent of those little slips of paper is on Google Drive. Each of you should have a file `course-eval.png`. (A "thank you" to the folks in the ASO for helping make this happen!)

  I prefer that you do these now but I can't insist.

- Best of luck finishing the semester, and best wishes for a pleasant summer break!