

Slide 1

Administrivia

- Reminder: Homework 8 due next week. One more after that!
- No class next week since Friday section can't meet. But there will be video lectures. I may have office hours during Wednesday class times; I'll send mail early next week about that.

Slide 2

Homework 6 Essays

- Not much really stood out . . .
- Some people said the problems initially seemed difficult or time-consuming, but turned out not to be given all the sample code.
- Some people mentioned that the last problem (encryption with a function using pointers into alphabets) helped them understand pointers better. That was one of the goals!
- A couple of people mentioned finding encryption interesting, and one mentioned how breaking the German Enigma machine code was significant in the history of computing. Indeed, and interesting!

Slide 3

Homework 6, Not From Essays

- On the second problem, surprisingly few people remembered that before blithely putting something into an array *you need to be sure the index is valid*. Remember that C does no checking of array indexes, and the results of out-of-bounds access range from crashes to subtle hard-to-find bugs!
- Most people, however, did do the third problem with the recommended approach. (In previous semesters this was often not true!)

Slide 4

Recap of Video Lectures — Last Week

- Multi-dimensional arrays in C, several ways.
- Conway's Game of Life and Homework 8.
(Most people said they had not heard of this game, though a few had, and some had seen code. Several commented that it sounded interesting. I think so!)
- Questions?

Recap of Video Lectures

- User-defined types (`typedef`, `enum`, `struct`, `union`).
- “Packaging” of library code and `make`.
- Questions?

Slide 5

Homework 8 and `make`

- Two programs, with a lot of common code. So I've structured the starter code with the likely common code separate from the main program(s).
- Note setup: Common code split into `.h` (declarations) and `.c` (definitions).
Very typical packaging for library code. `Makefile` says how to build.

Slide 6

Homework 8 and Conway's Game of Life

- First problem should be straightforward.
- Second problem is less so, but I think somewhat interesting, and a good use of dynamically allocated multi-dimensional arrays.

Slide 7

Homework 8 and Multi-Dimensional Arrays

- You don't actually have to write the code to build the arrays, just figure out how to work with it and then to use the arrays.

Slide 8

Open Lab Time

- (Use remainder of class period to work on Homework 8.)

Slide 9

Minute Essay

- How's Homework 8 going?

Slide 10