Questions?

About final code walks

How do we get started?

There are two parts to the system: `xclients` and `xserver`. Each of them serves as a starting point into your final code base.

Is the whole code base fair game?

Yes. While you didn't write it, you need to know it well enough to have built `Remote/` and that means all pieces in `Common/`.

How is it graded?

On a scale from 10 to 0.
10 is total mastery of interactions with a panelist. 0 means you don't show up.

About grades

There is no curve. Everybody can get A, and everybody can get an F.

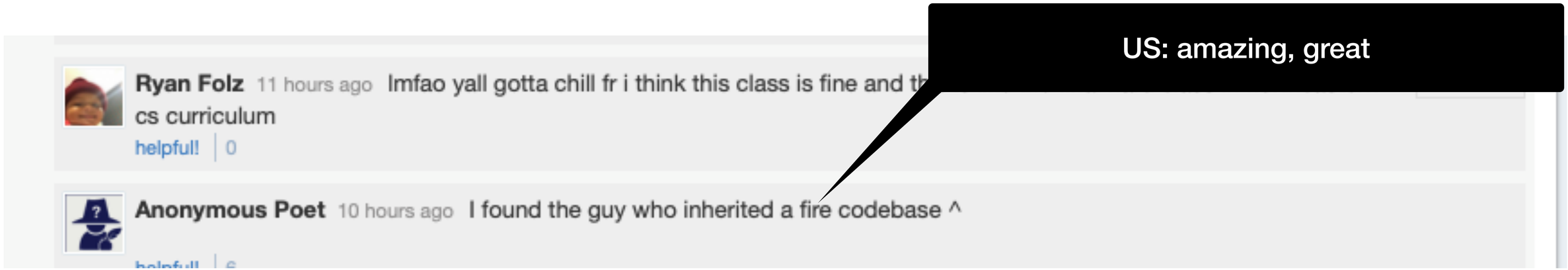
It has been my custom for a decade and more to throw out one grade from the homework to maximize your final average. I will do this again.

I don’t assume a priori that *anyone* can get a 100%. Professors should admit this. A rock-solid A starts at 95%.

Other Questions?

Socially Responsible Software Development

The big picture ideas we tried to teach



By the law of the excluded middle, Poet is the author of this “fire” code or isn’t:

case 1, he is:

All of you produced anti-amazing code,
and one of you dumped it on Poor Poet.

case 2, he is not:

Poor Poet dumped his anti-amazing code
on you, and you need to clean it up.

Where does socially responsible behavior start?

Give to charity.

Work for companies that do no evil.

Go to an NGO that does “good” work.

Help a homeless with a 20 or a lunch.

Join companies that give to your favorite causes.

Volunteer with a soup kitchen.

Socially responsible behavior starts with you
and how *you* relate to your immediate “neighbors”.

It’s never easy because it demands
spending *your time and energy* on
people whom you may never meet
and who may never say “thank you.”

Socially responsible software development starts with you.

— did you work in a responsible manner with your sw arch

— did you work in a responsible manner with your partner

— did you work in a responsible manner for your successors?

Socially responsible software development starts with you.

Solid Technical Work

Collaborative Reflection & Action

Collaborative Reflection & Action

A program is your thinking, systematically organized and expressed, so that *others* can understand and appreciate it.

Don’t do it alone. *Program in Pairs.*

Did you come prepared?

Did you pay attention? The entire time?

Did you switch control back and forth?

Did you raise an alarm when your partner’s externalized thinking was opaque?

Did you address partner trouble in a timely manner?

Present it to others.

Did you reflect on the TAs' feedback? Did you act on it?

Did you take listen when your partner presented? Take notes?

Did you compare your notes w/ your memo?

Did you reflect on this feedback? Right or wrong?
React to it?

Actively engage when presented with code.

Did you think “this could be my code base tomorrow”?

Did you engage? Ask questions when you didn’t understand?

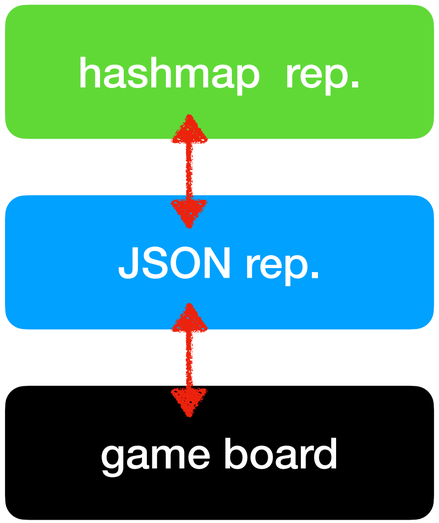
Did you not interrupt because it’s impolite? Affects grades?

Did you not interrupt because it’ affects grades?

Solid Technical Work

A program is your thinking, *systematically* organized and expressed, so that others can understand and appreciate it.

Pick a data representation. *Make sure you understand it.*



Did you describe the data representation?

Can you translate the data into “reality”?

Can you translate “reality” into data?

Does it express “contains” relationships properly?

What is information at one level, can be data at the next one.

Break down complex tasks into simple ones. *Compose.*

Can you enumerate the tasks that a method performs?

If it is more than one, *each needs a name* and it's too large.

Can you "align" basic tasks with the data they process?

If so, good. Otherwise, clarify the relationship for your successor.

Properly *group* data representations and functions around data representations.

Does every function “sit” with the proper data representation?

If not, what will changing the data representation do?

Are the data representation in the right place?

Do they belong to the *common ontology*
or to a distinct and separate part of the
architecture?

The Firehose of “Things”. Don’t drown in them.

The many concrete concepts you acquired

— command-line arguments are String[]

— *NIX scripts start with #! (see Posix)

— JSON: don’t deal with it manually

— TCP: it’s really just I/O streams

— are your GUIs portable?

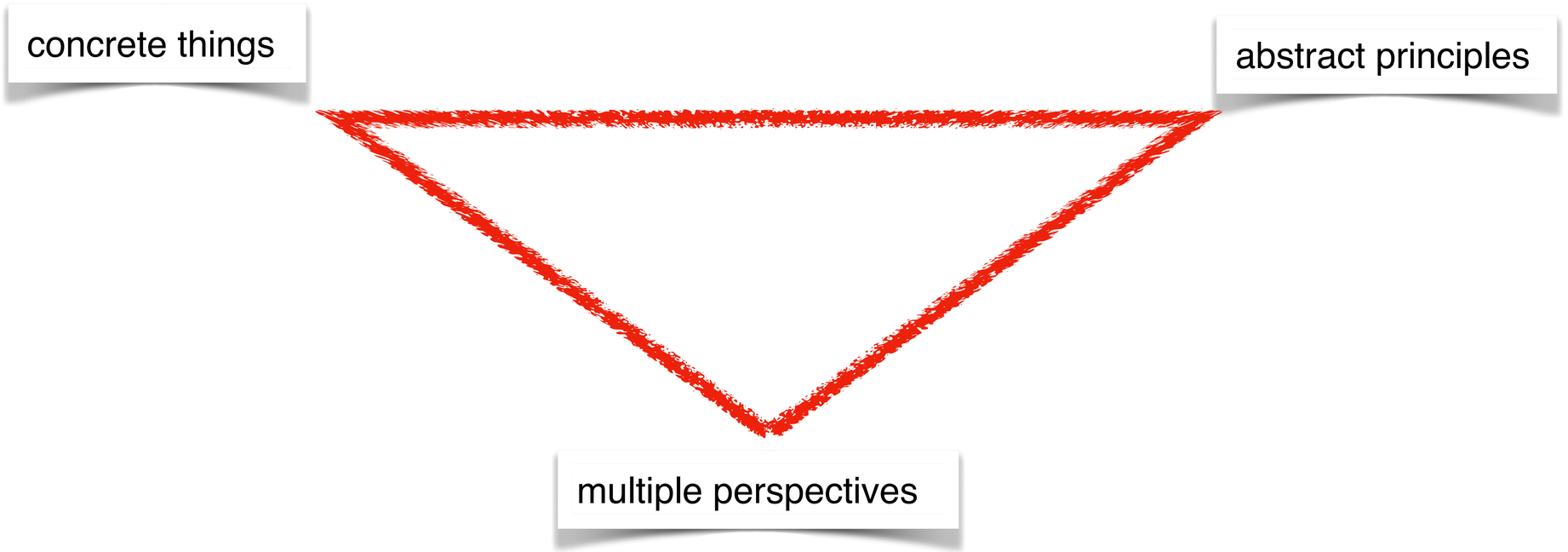
— make and Makefiles are cool

— there are more data structures than hash maps; Trees and caches; minimax

— in a distributed world, processes work independently, that is, until they communicate

— resources are finite; make sure to shut down threads, not to overload the GC, etc.

So?


concrete things
abstract principles
multiple perspectives

Good Bye and Good Luck