CSE 121 Lesson 11:
Putting it All Together

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Announcements and Reminders

- P2 due next Tuesday, May 14th @ 11:59 pm

- R4 released yesterday, due next Thursday @ 11:59 pm

- Reminders: we have two more "exam" dates!
  - Quiz 2 on 8/8 in section
  - Final Exam on 8/16 in **lecture**
    - Please reach out to me ASAP if you can't make the Final Exam time!
    - The only *alternate* final date will be on **8/9**

Announcements and Reminders

- Quiz 1 was *difficult*!
  - Maybe a little too difficult (oops)
  - Staff will decide what to do about Quiz 1 grades later today, I'll send out an announcement over the weekend with updates
  - Might entail minor changes to the syllabus

- Final Reflection Assignment updates
  - Spec release postponed as we figure out grading details for the quiz
  - Will also be released some time this weekend
  - Due dates may be adjusted to compensate for a late release

Last time: Scanner

Scanner console = new Scanner(System.in);

type   name   Scanner construction code

An **object** that we can use to *read in input*

     In the `java.util` "package"!

Methods	Description
`nextInt()`	Reads the next token from the user as an `int` and returns it.
`nextDouble()`	Reads the next token from the user as a `double` and returns it.
`next()`	Reads the next token from the user as a `String` and returns it.
`nextLine()`	Reads an *entire line* from the user as a `String` and returns it.

Edge Cases (and testing, debugging)

When writing a method that takes in input (e.g. parameters, Scanner), think carefully about the assumptions you can (and can't) make!

Edge Case: a situation that is at the "edge" of an input's valid values.

In today's example:

- are <u>all</u> possible months and days handled?
  - what about leap years?

- are <u>all</u> possible combinations of months and days handled?

Edge Cases and Types

In languages like Java, it's helpful to think of common edge cases related to the type of the value. For example,

- for numbers (e.g. int, double) can you handle `0`?
    - division is <u>especially</u> nasty!

- for Strings, can you handle the empty string `""`
    - `charAt` is <u>especially</u> nasty!

In future programming, you'll learn about <u>many</u> more of these (e.g. "biggest" and "smallest" numbers, `null`, empty array).