



CS3L: Introduction to Symbolic Programming

Lecture 6:
Mini-Project Prep

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Announcements

- Mini-Project Assigned Today
 - Due Monday at 11:59 pm
- Midterm Thursday 9:10-11:10
- Back-up lab materials
- Homework 5 due tonight at 11:59 pm



Case Study Review – Draw a Diagram of Each

- Draw a diagram of Version 1 and 2 of the case study
- Work with a partner
- Be prepared to explain your diagram



Mini-Project

- Day Span isn't helpful because it doesn't work across years (or centuries)
- You're going to write `century-day-span`
 - Works for years 1900 to 2999



century-day-span examples

- `(century-day-span '(january 3 1990) '(january 9 1990))` 7
- `(century-day-span '(march 30 1989) '(february 2 1990))` 310
- `(century-day-span '(january 1 1984) '(january 1 1985))` 367
- `(century-day-span '(january 1 2001) '(january 1 2005))` 1462



How would we test century-day-span?

- Jan 4 1999 Feb 28 2001 (crossing over leap year)
- Jan 1 1900 Dec 31 2999 (test extremes!)
- Didn't cross over leap year but has feb
- Test days in month to make sure # are in range Test Helper procedures
- Test two days in same month of same year
- Consecutive days
- General day span – helper procedure testing!
- Two days in the same year crossing over feb 29th
- Test over multiple leap years
- Test ove mult. Years w/ no leap years

Helper Procedures



- dates in the same month;
- dates in the same year in different months;
- dates in different years, where the month of the first date precedes the month of the second date;
- dates in different years, where the month of the first date follows the month of the second date;
- dates in different years that do not span a "leap day";
- dates in different years that span a "leap day";
- dates that span the leap day in the year 2000;
- dates that span the non-leap day in the year 1900;
- dates in different years with the first date in a leap year;
- dates in different years with the second date in a leap year;
- dates in different years with both dates in a leap year.

Tips on the project



- Work with a partner
 - Exchange contact information
 - Set up a time to work
- Work on it before the midterm
 - It will be good practice
 - Next week is going to be *intense* you should be 100% focused on Monday's new stuff!

Pair Programming



- What should it look like?
 - Split in the middle and not talk (BAD)
 - One person doesn't do any work (BAD)
 - One person doesn't let the other person work (BAD)
 - Write good comments!!! (GOOD)
 - Split up who does helper procedures (GOOD)
 - Check each other's procedures (GOOD)
 - Good placeholder names