CSC151.02 2014S, Class 36: Pairs and Pair Structures

Overview

- Preliminaries.
  - Admin.
  - Questions.
  - Quiz.
- Representing lists: Pairs and cons cells.
- Why care about the underlying representation?
- Lab!

Preliminaries

Upcoming Work

- Reading for Monday: Trees
- Homework for next Tuesday: HW 8: Producing Playful Polygons
- Today’s lab writeup: Exercise 4

Admin

- When I send you criticisms on lab writeups, there is no need to redo the writeup.
- I’ve returned most HW 7’s. Sorry for the difficult parts (which weren’t intentionally difficult)
- Continue this week’s partner assignments.
- Extra credit:
  - Math/Stats seminar monday: Cuong Nguyen ’14, Noon, somewhere in Math/Stat

Questions

Can you talk about backslashes in strings and characters?

Characters. Problem: Distinguish the character a from the string a from the symbol a from the name a. Scheme decided: characters #a, "a", ’a, a.

Strings. Sequences of characters surrounded by double-quotation marks. "KimS is so excited." If quotation marks appear within a string, preface them with a backslash. "Kim S says "I’m so excited!"" And when things are in quotation marks, you don’t need the #.

Whoops. Backslash has a special meaning. So .... to represent backslash in a string, write \. This lets us distinguish "/", "\"
What does \texttt{(list-drop lst n)} do?

Creates a new list by removing the first \(n\) elements of \texttt{lst}. You can also think of this as \texttt{(cdr (cdr ... (cdr lst)))}, with \(n\) calls to \texttt{cdr}.

Quiz

Wasn’t that fun?

Representing lists: Pairs and cons cells

Why care about the underlying representation?

- Some people think better from pictures.
- Helps us understand why some things work the way they do.
- Reminds us about costs.

Lab

Correction: NO LAB WRITEUP!

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