2013W1-lecture24

November 8, 2013

Contents

1   Question of the Day

If your language allows pass-by-reference semantics, who **should** be responsible for indicating that a particular parameter uses pass-by-reference semantics?

1. No one (as in our implementation!)

2. The caller (i.e., the code at the function call site)

3. The callee (i.e., the code at the function definition)

(There's no right answer to this, although I have a favorite answer!)

2   Logistics

2.1   Final Project: Commit due Sunday, Proposal due in one week

FIND YOUR TEAM of 3–5!

3   What have we learned today?

- Lambda calculus

  - Identify the three language elements required to simulate any computation possible in any language (i.e., 1-parameter function definitions, 1-argument function applications, and identifiers, the expressions in the lambda calculus).

  - Given a desugaring along the way to "shrinking a language" to the lambda calculus, explain how it shows that one element of the language is not necessary to express computations using that element.

  - Given such a desugaring, use it (or explain how) in preprocessing an AST to reduce the number of cases an interpreter for the language has to handle.