

## CSSE 304 Assignment 16 Updated for Spring, 2016.

**Reading:** See the schedule page

**Programming problems.** This group assignment is to be done by your interpreter team.

For each interpreter assignment, there will be a brief participation survey on Moodle.

**1. (60 points)** Add additional syntax to your interpreted language.

The new features to be added are `letrec` and named `let`.

You may implement **`letrec`**  
directly in the interpreter or  
*via* `syntax-expand` (your choice).

In class we discussed a way to do `letrec` without mutation and another way to do it *via* mutating a ribcage environment; or if you wish, you may instead use a syntax expansion approach similar to that of TSPL, near the middle of Section 4.4 in TSPL 4, which I also discussed in class. But this approach will require doing part of A17 first.

I suggest adding named **`let`** as a syntactic expansion (similar to TSPL section 3.2) rather than adding it directly to `eval-exp`.

The next assignment will be more substantial (adding `set!`, `define`, and reference parameters). Since this assignment is small, I suggest that you finish it early and get an early start on the next one.