Fall Term 2014

CS 345H - Programming Languages: Honors Assignment 4

Assigned on: **Oct 28 2014**
Due by: **Dec 01/03 2014**

1   Programming Language Design in Practice (80 Points)

In this assignment you are asked to form teams of up to four students and design an element of a programming language in form of a Scala (internal) DSL.

You are free to implement an entire language (existing or self-created), extend an existing language (e.g., Scala itself) by an interesting feature (language construct, type system, type inference, etc.), or, for instance, implement a compiler that translates one language into another (e.g., a non JVM language into Java Bytecode).

The amount of work should be adequate for the time (5 weeks) and group size and the project should show understanding of programming language concepts as well as creativity.

The projects will be presented to the rest of the class at the end of the course.

Project Registration

Once you have formed a team and agreed on a topic please post a message to the Assignment 4 thread on Piazza. The post should include the name of your team, the team members, and a short abstract describing you plans.

Supporting Material

To see an example of a programming language embedded into a Scala DSL have a look at `https://github.com/fogus/baysick`. You can also have a look at some selected projects from last year: `http://www.cs.utexas.edu/users/jrellerm/courses/fall2013/345H/#project`