

CSE341 – Programming Languages (Fall 2015)

Project 1 – Part 2

Handed out: 11:00am Friday December 4, 2015.

Due: 11:55pm Friday December 25, 2015.

Hand-in Policy: Source (modified file and additional if needed) should be submitted online on Moodle by the submission deadline. No late submissions will be accepted.

Collaboration Policy: No collaboration is permitted. Any cheating (copying someone else's work in any form) will result in a grade of -200 for the first offense and -400 for the subsequent attempts.

Grading: Each project will be graded on the scale 200. Unless otherwise noted, the questions/parts will be weighed equal.

Coffee Language Parser (200 points): Given the description of the **Coffee** language (CoffeLanguage_Semantic.pdf) you are asked to implement the parser. You are expected to use Shift-Reduce parser. Your output will be a parse tree. Tokenization should be done by **your previous** project.

The only file that you are required to modify is "parser.java".

Note: The grammar provided in CoffeLanguage_Semantic.pdf has two ambiguities. Identify them and assume that you will not encounter an input that might lead to these ambiguities during your parsing.

Example input:

(+ x y)

Parsing result:

```
START -> INPUT
      -> EXP
      -> EXPI
      -> (+ EXPI EXPI)
      -> (+ EXPI Id)
      -> (+ Id Id)
```