COMPUTER SCIENCE 322 (Winter Term 2004)
Compiler Construction
Prof. Levy

Problem Set 8

Due Monday 30 March

Reading Assignment: Dragon Book 8.2-8.4

Programming Assignment

Using the TinyML grammar from the previous assignment, implement as much intermediate (three-address) code generation as you can. You should be able to everything bottom-up, except for `if-then-else`. So you should probably skip `if-then-else`, or leave it for last. As in the previous assignment, you should start small, with numeric constants, and then move onto arithmetic expressions, then finally to identifiers and functions.

Your code generator can just emit (`System.out.println()`) one instruction at a time. For the final assignment, however, you will need a data structure (class hiearchy) to represent three-address instructions, because you will be using them to generate MIPS assembly code. So I suggest working out your three-address representation now, and having your intermediate-code generator call the `toString()` method of each instruction in sequence.