Homework #7: CMPT-379

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(1) **Compiler Contest**:

This special homework is specially created to allow you to package your entire compiler project that was built over the course of the semester. Submit your compiler as a self-contained package that can be used to compile **Decaf** programs into MIPS assembly and subsequently execute them using the `spim` simulator for the MIPS processor. Make sure that your compiler can be compiled by running `make` or a script called `compileit`. Create a script called `decafcc` that is used to run the entire compiler chain from lexical analysis to code generation to running the MIPS simulator (assume `spim` is in the PATH).

In your submission, provide in a subdirectory called `positives` any number of **Decaf** programs that work with your compiler (the programs should be valid **Decaf** based on the language definition and execute using `spim`) along with the legitimate output for that **Decaf** program, e.g. for a program called `exprTest.decaf` also include the legitimate output in a file called `exprTest.decaf.output`. Also provide a subdirectory called `negatives` with **Decaf** programs that should exit with an error.

We will test each compiler with all the programs submitted and some of our own **Decaf** programs. Ranking of your compiler will depend on how many of the positives successfully produce legitimate output how many of the negatives exit with an error. In addition, a compiler with an elegant implementation which does not use code that was released as solutions to previous homeworks will be ranked higher.