COMP 520 Compiler Design
Group Milestone #4

Code Generation for GoLite

Due: Tuesday, April 10 11:59 PM

Benchmarks (5 points)

For each team member, provide 1 benchmark that executes for around 5s (in the Go playground) and computes the solution to a real world problem. It should be valid according to the reference compiler. You should use a variety of language features to help you achieve good performance throughout your generated code.

Final Code Generator (45 points)

In this last milestone you will complete your code generator. You should now support all constructs in GoLite, and have a fully functional compiler. We do not expect a perfect code generator handling all edge cases, but you should strive to be as complete as possible. To this end, you should be testing on a variety of programs for each construct. The more complete your testing, the more complete your compiler. Please provide a working `execute.sh` script to interact with the provided `verify.sh` script. If you have any questions about this requirement, please come see us!

What to hand in

Create a tag in your Github repository named *milestone4* (lowercase, no extra characters). Information about creating git tags can be found at: `http://git-scm.com/book/en/v2/Git-Basics-Tagging`. Your project should be kept in the following format

```
/
    README   (Names, student IDs, any special directions for the TAs)
    programs/
        1-scan+parse/
            valid/
            invalid/
        2-typecheck
            invalid/
        3-semantics+codegen/
            valid/
    doc/       (Design documents)
```

```
src/        (Source code and build files)
execute.sh (Updated execute script)
build.sh   (Updated build script)
run.sh     (Updated run script)
```