

## Lab 5

## Crafting a Compiler

9.2 (show the AST for a “sign test” operation. (Skip the other part.))

Assume that we add a new kind of conditional statement to C or Java, the *signtest*. Its structure is:

```
signtest ( exp ) {
    neg: stmts
    zero: stmts
    pos: stmts
}
```

The integer expression *exp* is evaluated. If it is negative, the statements following *neg* are executed. If it is zero, the statements following *zero* are executed. If it is positive, the statements following *pos* are executed. Show the AST you would use for this construct. ~~Revise the semantic analysis, reachability, and throws visitors for if statements (Section 9.1.2) to handle the signtest.~~

This is basically a switch statement but less complex. The next that the PositiveText Leads to is null because nothing happens if the *expr* fails all texts (like if it was a string and the compiler somehow didn't catch the type mismatches for whatever reason).

