

Lab Six (Part 2)

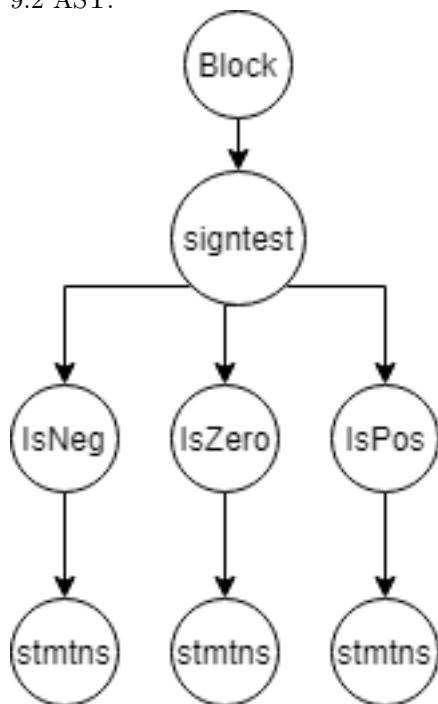
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1 CRAFTING A COMPILER

9.2 AST:



Semantics Visitor

The semantics visitor first checks if the expression inside signtest is a valid expression. Then, it checks that a valid statement is inside each of the statements following the condition of which sign the variable is.

Reachability Visitor

The reachability visitor makes sure that each statement is reachable through some condition. The conditions are negative value, zero value, or positive value. In each of these conditions a statement can be reached, so the reachability check passes.

Throws Visitor

The throws visitor collects information about the various exceptions that could come up during semantic analysis. The first exception is if there is an invalid expression directly inside signtest. If it is invalid, an error is thrown. The second exception is if the expression is not an integer expression, because then it wouldn't properly evaluate to positive, negative, or zero.