

Lab 5 – Syntax Trees

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1 Crafting a Compiler

1.1 9.2 – AST for Signtest Operation

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.

```
Signtest  
-Compare exp  
--PosBlock (if > 0)  
---Stmts  
--ZeroBlock (if = 0)  
---Stmts  
--NegBlock (if < 0)  
---Stmts
```

2 Dragon Book

No excercises this time, just absorb the book!!