Compilers

CMPT 432

- Lab 5

Goals

Building Syntax Trees both Concrete and Abstract

Notes

Trees... one of the most common and useful data structures in all of computer science. They're so useful that we'll build two of them: a Concrete Syntax Tree and an Abstract Syntax Tree.

Resources

Crafting a Compiler

- Read chapters 2.7, 7.1, 7.3-7, 8.1-3, and 9.1
- Do exercise 9.2 (show the AST for a "sign test" operation. (Skip the other part.))

Dragon

• Read chapters 2.5.1, 2.8.2, 5.3.1 and 6.3.1

Submitting

Commit a PDF of your work to your GitHub repository and I'll take a look at it.

```
Source Code
{
   int a
   a = 1
       string a
       a = "a"
       print(a)
   string b
   b = b
   if (a == 1) {
       print(b)
                                           AST
                                           Block
}
VarDecl-
                                                   -VarDecl ------Assign ------If
              -- Assign
                                 Block --
                       VarDecl ----- Assign ----- Print
                                                                      "b"
                                                                           isEq
                                                                                 Block
int
                                                   string
                                                                                 Print
                      string
```