Lab 4 – Lexer

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March 11, 2024

1 Crafting A Compiler

1.1 4.9 first and follow set

Production	Nullable?	First Set	Follow Set
S	No	{a, b, c, d}	{e, d}
B	No	{b, c, d}	{e, d}
C	No	{c, d}	{e, d}

1.2 5.10 dangling else's

```
First tree)

S
- Stmt
-- if expr then
-- Stmt
--- if expr then
--- Stmt
---- other
--- else
--- Stmt
---- other

Second tree)
S
- Stmt
-- if expr then
-- Stmt
--- if expr then
--- Stmt
---- other
-- else
-- Stmt
--- other
```

```
The trees have different correspondance of if and else as the different branches are
constructed in different and thus have the other terminals at different depths.
```

2 Dragon

2.1 First and follow sets 4.4.3

Production	Nullable?	First Set	Follow Set
S	No	{a}	{a, +, *}