

Compiler Assignment for CT3  
Syntax Analysis and Parse Tree Generation for Traffic Light Control

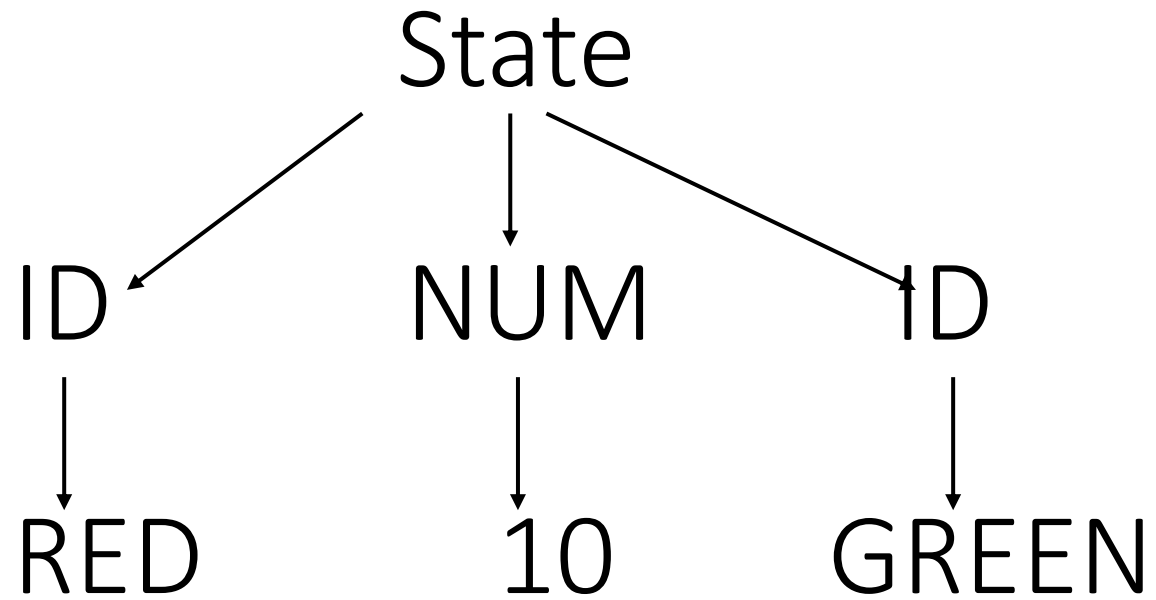
## Grammar

S	→ StateList
StateList	→ State StateList   State
State	→ "state" ID NUM "->" ID ";"
ID	→ RED   GREEN   YELLOW
NUM	→ DIGITS
DIGITS	→ DIGIT DIGITS   DIGIT
DIGIT	→ 0 1 2 3 4 5 6 7 8 9

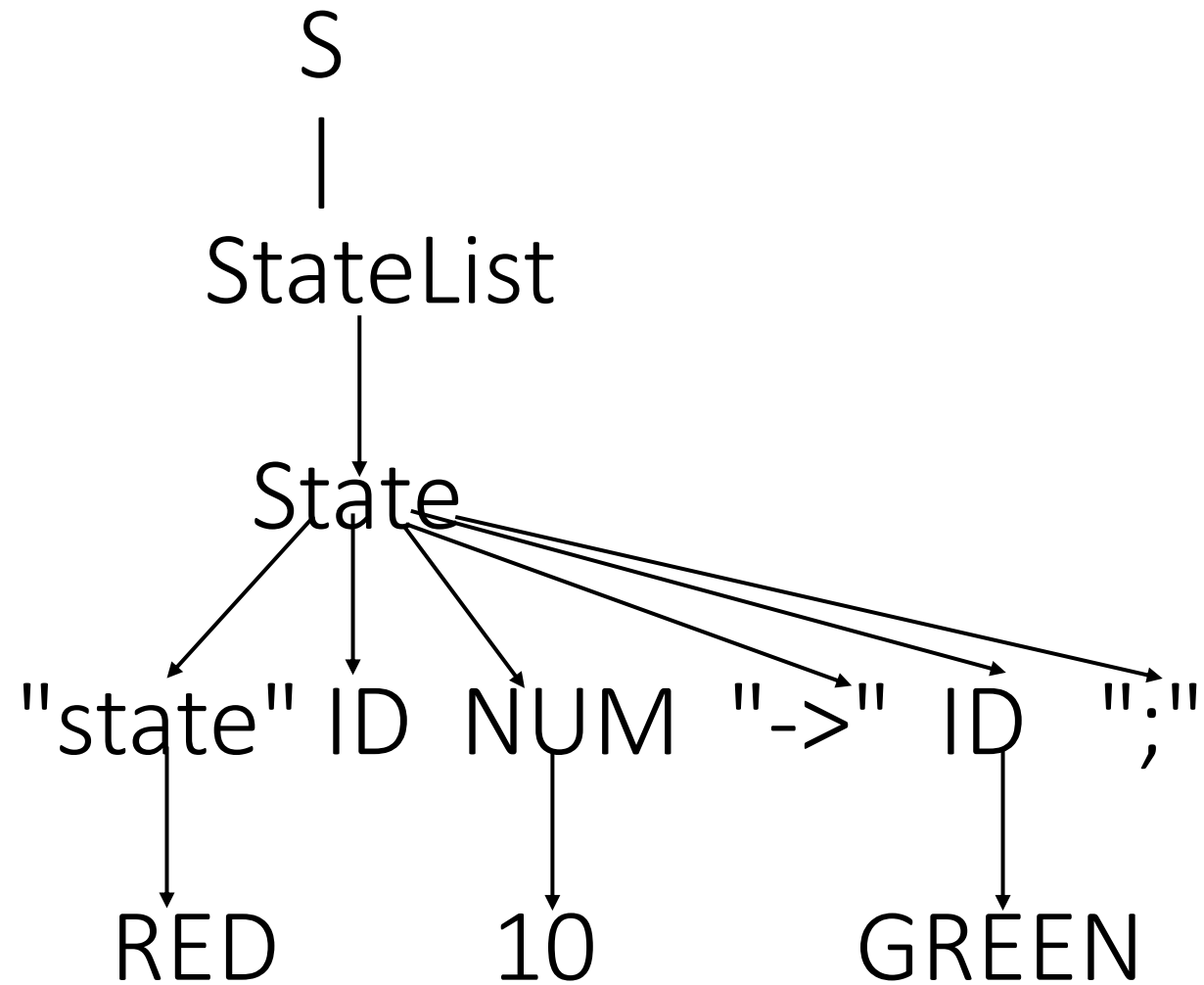
# Lexical Analysis

- (state , KEYWORD)
- (RED, ID )
- (10 ,NUM )
- (-> , Arrow)
- (GREEN, ID)
- (; ,SEMICOLON)

# Syntax Tree



# Lexical Analysis



# Semantic Analysis

