

Princeton University
COS 217: Introduction to Programming Systems
Digital Circuit Simulator Parser Module Design

Grammar (expressed in Backus Naur Form):

```
element ::= NUMBER_TOKEN
element ::= IDENTIFIER_TOKEN
element ::= LEFT_PAREN_TOKEN expr RIGHT_PAREN_TOKEN

factor ::= NOT_TOKEN* element

term ::= factor [AND_TOKEN factor]*

expr ::= term [OR_TOKEN term]*

inputstmt ::= IDENTIFIER_TOKEN+

flipflopstmt ::= IDENTIFIER_TOKEN+

nextstmt ::= IDENTIFIER_TOKEN expr

stmt ::= INPUT_TOKEN inputstmt SEMICOLON_TOKEN
stmt ::= FLIPFLOP_TOKEN flipflopstmt SEMICOLON_TOKEN
stmt ::= NEXT_TOKEN nextstmt SEMICOLON_TOKEN

program ::= stmt+
```

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