**Project #1**

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S is the start symbol

S ::= ( ( <var\_type> | ε ) <operation> ( , <operation> )\* ; ) | <statement> | <print>

<var\_type> ::= boolean | char | double | int | string

<operation> ::= <identifier> ( ( = | == ) <expression> | ε )

<identifier> ::= <identifier\_start> <identifier\_body>\*

<indentifier\_start> ::= A..Z | a..z | \_ | $

<identifier\_body> ::= <indentifier\_start> | <digit>

<digit> ::= 0 | <non\_zero\_digit>

<non\_zero\_digit> ::= 1..9

<expression> ::= <parens\_operator>\* ( <value> | <identifier> ) ( <non\_parens\_operator> <parens\_operator>\* ( <value> | <identifier>) <parens\_operator>\* )\*

<value> ::= <boolean> | <char> | <double> | <int> | <string>

<boolean> ::= true | false

<double> ::= ( ( <non\_zero\_digit> <digit>\* ) | 0 ) . <digit>+

<string> ::= “ASCIICHAR”

<char> ::= ‘ASCIICHAR’

<non\_parens\_operator> ::= + | - | \* | / | %

<parens\_operator> ::= ( | )

<statement> ::= if ( <identifier> == <value> ) { S }

<print> ::= print ( <identiter> | <value> )