Grammar for LESL

capital -> 'A'|'B'|'C'|'D'|'E'|'F'|'G'|'H'|'I'|'J'|'K'|'L'|'M'|'N'|'O'|'P'|'Q'|'R'|'S'|'T'|'U'|'V'|'W'|'X'|'Y'|'Z'

small -> 'a'|'b'|'c'|'d'|'e'|'f'|'g'|'h'|'i'|'j'|'k'|'l'|'m'|'n'|'o'|'p'|'q'|'r'|'s'|'t'|'u'|'v'|'w'|'x'|'y'|'z'

digit -> '0'|'1'|'2'|'3'|'4'|'5'|'6'|'7'|'8'|'9'

number -> digit number | digit

alphanumeric -> capital alphanumeric | small alphanumeric | number alphanumeric.
alphanumeric -> capital |small | number

variable -> capital subvariable | capital | alphanumeric, subvariable | alphanumeric

expression -> term '+' expression | term '-' expression | term
term -> factor '*' term | factor '/' term | factor '%' term | factor
factor -> '(' expression ')' | number | variable

booleanExpression-> booleanTerm boolOperator booleanExpression | not booleanTerm | '(' booleanExpression ')' | boolean
booleanTerm -> '(' booleanExpression ')' | boolean
boolean -> expression | variable | true | false
not-> '!'
boolOperator -> '&' | '|' | '<' | '>' | '<=') | '>=' | '!=' | '=='

assignment -> variable '=' expression | variable '=' booleanExpression
printValue -> #show variable | #show number

condition -> 'if' '(' booleanExpression ')' codeBlock | 'if' '(' booleanExpression ')' codeBlock subCondition | subCondition
subCondition -> 'else' codeBlock | 'elseif' '(' booleanExpression ')' codeBlock | 'elseif' '(' booleanExpression ')' codeBlock subCondition

loop -> 'while' '(' booleanExpression ')' codeBlock

codeBlock -> 'begin' subCodeBlock 'end' | statement subCodeBlock | statement

statement -> condition | loop | assignment '.' | printValue '.'
code -> statement code | statement