Gramática

Program ::= { Declaration [END] { ENDL }}

Declaration ::= VarDecl | FunDecl | ClassDecl

VarDecl ::= ("var" | "val") Identifier (":" Type)? "=" Expression END

FunDecl ::= "fun" Identifier "(" [ParamList] ")" (: Type)? Block

ClassDecl ::= "class" Identifier "{" Declaration [END] { ENDL }"}"

ParamList ::= Parameter { "," Parameter }

Parameter ::= Identifier ":" Type

Type ::= "Int" | "Boolean" | "Unit"

Block ::= "{" Statement [END] { ENDL }"}"

Statement ::= ("var" | "val") Identifier (: Type)? = Expression END
| Expression END
| "if" "("Expression")" Statement ["else" Statement]
| "while" "("Expression")" Statement
| "for" "(" Identifier "in" Expression ".." Expression")" Statement
| "return" [Expression] END
| { Statement [END] { ENDL }}
| "print" (LogicOr)
| "println" (LogicOr)

Expression ::= Assignment

Assignment ::= Identifier "=" Assignment | LogicOr

LogicOr ::= LogicAnd { "||" LogicAnd }

LogicAnd ::= Equality {"&&" Equality}

Equality ::= Comparison { ("==" | "!=") Comparison }

Comparison ::= Term { ("<" | "<=" | ">" | ">=") Term }

Term ::= Factor { ("+" | "-") Factor }

Factor ::= Unary { ("*" | /") Unary }

Unary ::= ("!" | "-") Unary | Primary

Primary ::= IntegerLiteral (INT_LITERAL)
| ("true" | "false")
| "this"
| Identifier
| "(" Expression ")"
| Primary "." Identifier
| Identifier "(" [ArgumentList] ")"

ArgumentList ::= Expression { , Expression }

END ::= SEMICOLON | ENDL

Identifier ::= ID