```
Program -> Statement ; Program
Program -> epsilon

Statement -> DeclarationStatement
Statement -> AssignStatement
Statement -> IOStatement
Statement -> IfStatement
Statement -> WhileStatement
Statement -> MatchStatement
Statement -> CompoundStatement

DeclarationStatement -> Identifier : Type
DeclarationList -> DeclarationStatement
DeclarationList -> DeclarationStatement , DeclarationList

Type -> TypeValue
Type -> ArrayDecl

TypeValue -> nothing
TypeValue -> boolean
TypeValue -> character
TypeValue -> integer
TypeValue -> text
TypeValue -> structure
TypeValue -> list
TypeValue -> dictionary

ArrayDecl -> TypeValue [ Size ]

AssignStatement -> Identifier = Expression

Expression -> Term ExpressionRest
ExpressionRest -> + Term ExpressionRest
ExpressionRest -> epsilon

Term -> Factor TermRest
TermRest -> * Factor TermRest
TermRest -> epsilon

Factor -> ( Expression )
Factor -> Identifier

IOStatement -> input ( String )
IOStatement -> output ( Identifier )

CompoundStatement -> { StatementList }

IfStatement -> if ( Condition ) { StatementList }
IfStatement -> if ( Condition ) { StatementList } else { StatementList }

MatchStatement -> match ( Expression ) { CaseList }

WhileStatement -> while ( Condition ) { StatementList }

Condition -> Expression RelationalOperator Expression
```

RelationalOperator -> ==
RelationalOperator -> <
RelationalOperator -> <=
RelationalOperator -> =
RelationalOperator -> !=
RelationalOperator -> >=
RelationalOperator -> >

CaseList -> CaseStatement
CaseList -> CaseStatement ; CaseList
CaseStatement -> Expression : Statement

DeclarationStatement -> Identifier : Type

Identifier -> Letter RestOfIdentifier
RestOfIdentifier -> epsilon
RestOfIdentifier -> Letter RestOfIdentifier
RestOfIdentifier -> Digit RestOfIdentifier
RestOfIdentifier -> _ RestOfIdentifier

Size -> IntConstant

Letter -> 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 | 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

NonZeroDigit -> 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

MaybeSign -> +
MaybeSign -> -
MaybeSign -> epsilon

IntConstant -> MaybeSign PositiveNumber
IntConstant -> 0
PositiveNumber -> NonZeroDigit TheRestOfIntConstant
TheRestOfIntConstant -> epsilon
TheRestOfIntConstant -> Digit TheRestOfIntConstant

String -> Char String
String -> epsilon

Char -> Letter
Char -> Digit