

# Gramática

<b>Program</b>	::= VarDecList ClassDecList FunDecList
<b>VarDecList</b>	::= {VarDec}
<b>ClassDecList</b>	::= {ClassDec}
<b>FunDecList</b>	::= {FunDec}
<b>VarDec</b>	::= ( <b>var</b>   <b>val</b> ) Identifier [: Type] = Exp END
<b>ClassDec</b>	::= <b>class</b> Identifier([ClassParamList]) {[VarDecList]}
<b>FunDec</b>	::= <b>fun</b> Identifier([FunParamList])[: Type] {Block}
<b>FunParamList</b>	::= FunParameter {, FunParameter}
<b>FunParameter</b>	::= Identifier : Type
<b>Type</b>	::= <b>Int</b>   <b>Boolean</b>   <b>Unit</b>
<b>Block</b>	::= VarDecList StmtList
<b>StmtList</b>	::= {Statement {ENDL}}
<b>Statement</b>	::= IfStatement   PrintStatement   FCallStm   AssignStatement   ForStatement   WhileStatement   ReturnStatement
<b>IfStatement</b>	::= <b>if</b> (Exp){Block}[ <b>else</b> {Block}]
<b>PrintStatement</b>	::= ( <b>print</b>   <b>println</b> )(Exp) END
<b>FCallStm</b>	::= Identifier([Exp {, Exp}]) END
<b>AssignStatement</b>	::= Identifier = Exp END
<b>ForStatement</b>	::= <b>for</b> (Identifier <b>in</b> Exp..Exp){Block}
<b>WhileStatement</b>	::= <b>while</b> (Exp){Block}
<b>ReturnStatement</b>	::= <b>return</b> [Exp] END
<b>Exp</b>	::= LogicAnd {   LogicAnd}
<b>LogicAnd</b>	::= Equality { Equality }
<b>Equality</b>	::= Comparison {(==   !=) Comparison}
<b>Comparison</b>	::= Term {( <   ≤   >   ≥ ) Term }
<b>Term</b>	::= Factor {(+   -) Factor}
<b>Factor</b>	::= Unary {( *   / ) Unary }
<b>Unary</b>	::= ( !   - ) Unary   Primary
<b>Primary</b>	::= IntegerLiteral   BooleanLiteral   Identifier   Identifier(Arguments)   Identifier.Identifier   (Exp)
<b>BooleanLiteral</b>	::= <b>true</b>   <b>false</b>
<b>Arguments</b>	::= [Exp {, Exp}]
<b>END</b>	::= ;   <b>ENDL</b>