

TestLang grammar

Start symbol: Program

Program	::= DeclarationList
DeclarationList	::= DeclarationList declaration Declaration
Declaration	::= VarDeclaration OprDeclaration ϵ
VarDeclaration	::= Identifier: Type ; Identifier: Type = Literal; CollectionDeclaration
CollectionDeclaration	::= Identifier: col <Type> { NumberLiteral }; Identifier: col <Type> { Identifier }; Identifier: col <Type> = CollectionLiteral;
OprDeclaration	::= opr Identifier (IdList) Block send Expression ;
Type	::= number letter sate col
Block	::= [VarDeclarations StatementsList]
IdList	::= Identifier IdListTail Literal IdListTail ϵ
IdListTail	::= , Identifier IdListTail , Literal IdListTail ϵ
StatementsList	::= Statement StatementsList Statement

Statement	$::= \text{Expression} ;$ $? (\text{Expression}) \text{Block}$ $ \text{until} (\text{Expression}) \text{Block}$ $ \text{out} \leq \text{Expression} ;$ $ \text{in} \Rightarrow \text{Expression} ;$ $ \varepsilon$
Expression	$::= \text{Primary}$ $ \text{Expression} \text{Operator} \text{Primary}$
Primary	$::= \text{Identifier}$ $ \text{Identifier} (\text{ExpressionList})$ $ \text{Operator} \text{Primary}$ $ \text{Literal}$ $ (\text{Expression})$
Literal	$::= \text{NumberLiteral}$ $ \text{LetterLiteral}$ $ \text{StateLiteral}$ $ \text{CollectionLiteral}$
CollectionLiteral	$::= < \text{IdList} >$
ExpressionList	$::= \text{Expression} \text{ExpressionListTail}$ $ \varepsilon$
ExpressionListTail	$::= , \text{Expression} \text{ExpressionListTail}$ $ \varepsilon$
Operator	$::= +$ $ -$ $ *$ $ /$ $ >$ $ <$ $ =$ $ ==$ $!$ $ \&$ $ $ $ --$ $ <<$ $ >>$ $ //$ $ '$