

Attribute Grammar

Nodo	Predicados	Reglas Semánticas
program → <i>definitions</i> :definition*		
varDefinition :definition → <i>name</i> :String <i>type</i> :type	variables.getFromTop(name) == null	variables[name] = varDefinition
structDefinition :definition → <i>name</i> :varType <i>definitions</i> :structField*	variables.getFromAny(name) == null	variables[name] = structDefinition structs[name] = structDefinition
funDefinition :definition → <i>name</i> :String <i>params</i> :definition* <i>return_t</i> :type <i>definitions</i> :varDefinition* <i>sentences</i> :sentence*	funciones[name] == null	funciones[name] = funDefinition
structField :definition → <i>name</i> :String <i>type</i> :type	variables.getFromTop(name) == null	variables[name] = structField
intType :type → λ		
realType :type → λ		
charType :type → λ		
varType :type → <i>type</i> :String		
voidType :type → λ		
arrayType :type → <i>size</i> :intConstant <i>type</i> :type		
errorType :type → λ		
print :sentence → <i>expression</i> :expression		
printsp :sentence → <i>expression</i> :expression		
println :sentence → <i>expression</i> :expression		
read :sentence → <i>expression</i> :expression	Expression.modificable	
assignment :sentence → <i>left</i> :expression <i>right</i> :expression		
return :sentence → <i>expression</i> :expression		
ifElse :sentence → <i>expression</i> :expression <i>if_s</i> :sentence* <i>else_s</i> :sentence*		
while :sentence → <i>expression</i> :expression <i>sentence</i> :sentence*		
funcInvocation :sentence → <i>name</i> :String <i>params</i> :expression*	funciones[name] != null	funcInvocation.definition = funciones[name]
variable :expression → <i>name</i> :String	variables.getFromAny(name) != null	variable.definition = variables[name] variable.modificable = true
intConstant :expression → <i>value</i> :String		intConstant.modificable = false
realConstant :expression → <i>value</i> :String		
charConstant :expression → <i>value</i> :String		
voidConstant :expression → λ		

funcInvocationExpression: expression → <i>name:String params:expression*</i>	funciones[name] != null	funcInvocationExpression.definition = funciones[name]
arithmeticExpression: expression → <i>left:expression operator:String</i> <i>right:expression</i>		
logicalExpression: expression → <i>left:expression operator:String</i> <i>right:expression</i>		
unaryExpression: expression → <i>operator:String expr:expression</i>		
comparableExpression: expression → <i>left:expression operator:String</i> <i>right:expression</i>		
castExpression: expression → <i>type:type</i> <i>expr:expression</i>		
fieldAccessExpression: expression → <i>expr:expression name:String</i>		
indexExpression: expression → <i>expr:expression index:expression</i>		

Recordatorio de los operadores (para cortar y pegar): $\Rightarrow \Leftrightarrow \neq \emptyset \in \notin \cup \cap \subset \not\subset \sum \exists \forall$

Atributos

Nodo/Categoría Sintáctica	Nombre del Atributo	Tipo Java	Heredado/Sintetizado	Descripción
funcInvocation	definition	FuncDefinition	Sintetizado	
funcInvocationExpression	definition	FuncDefinition	Sintetizado	
variable	definition	VarDefinition	Sintetizado	
expression	modificable	Boolean	Sintetizado	