

Grammar After Removing Ambiguity

Goal ::=	MainClass ClassDeclaration` <EOF>
MainClass ::=	"class" Identifier "{" "public" "static" "void" "main" "(" "String" "[" "]" Identifier ")" "{" Statement "}" "}"
ClassDeclaration` ::=	ClassDeclaration ClassDeclaration` λ
ClassDeclaration ::=	"class" Identifier Extends` "{" VarDeclaration` ConstructorDeclaration` MethodDeclaration` "}"
Extends` ::=	"extends" Identifier λ
VarDeclaration` ::=	VarDeclaration VarDeclaration` λ
VarDeclaration ::=	Type Identifier ":",
ConstructorDeclaration` ::=	ConstructorDeclaration ConstructorDeclaration` λ
ConstructorDeclaration ::=	Identifier "(" TypeIdentifier ")" "{" VarDeclaration` Statement` "}"
MethodDeclaration` ::=	MethodDeclaration MethodDeclaration` λ
MethodDeclaration ::=	("public" "private" "protected") Type Identifier "(" TypeIdentifier ")" "{" VarDeclaration` Statement` "return" Expression ":", "}"
TypeIdentifier ::=	Type Identifier CommaTypeIdentifier λ
CommaTypeIdentifier ::=	"," Type Identifier CommaTypeIdentifier λ
Statement` ::=	Statement Statement` λ
Type ::=	("int" "boolean" "float" "String" "char") Brackets
Brackets ::=	"[" "]" λ
Statement ::=	"{" Statement` "}" "if" "(" Expression ")" Statement Else "while" "(" Expression ")" Statement "System.out.println" "(" Expression ")" ":", Identifier EqualOrBracketExpression
Else ::=	"else" Statement λ
EqualOrBracketExpression ::=	"=" Expression ":", "[" Expression "]" "=" Expression ":",
Expression ::=	(<INTEGER_LITERAL> <FLOAT_LITERAL> "true" "false" Identifier "this" "new" TypeOrIdentifier "!" Expression "(" Expression ")") Expression`
TypeOrIdentifier ::=	("int" "float" "String" "char" "boolean") "[" Expression "]" Identifier "(" ExpressionArgu ")"
ExpressionArgu ::=	Expression CommaExpressionArgu λ

CommaExpressionArgu ::=	“,” Expression CommaExpressionArgu λ
Expression` ::=	ExpressionItems Expression' λ
ExpressionItems::=	("&&" " " "==" "!=" ">" "<" "<=" ">=" "+" "-" "*" "/") Expression "[" Expression "]" "." AfterDot
AfterDot ::=	"length" Identifier "(" ExpressionArgu ")"
Identifier ::=	<IDENTIFIER>