

Compilers

Final Project Grammar

Program	::== Block \$	
Block	::== { StatementList }	<i>Curly braces denote new scope.</i>
StatementList	::== Statement StatementList ::== ϵ	
Statement	::== PrintStatement ::== AssignmentStatement ::== VarDecl ::== WhileStatement ::== IfStatement ::== Block	
PrintStatement	::== print (Expr)	
AssignmentStatement	::== Id = Expr	<i>= is assignment.</i>
VarDecl	::== type Id	
WhileStatement	::== while BooleanExpr Block	
IfStatement	::== if BooleanExpr Block	
Expr	::== IntExpr ::== StringExpr ::== BooleanExpr ::== Id	
IntExpr	::== digit intop Expr ::== digit	
StringExpr	::== " CharList "	
BooleanExpr	::== (Expr boolop Expr) ::== boolval	
Id	::== char	
CharList	::== char CharList ::== space CharList ::== ϵ	
type	::== int string boolean	
char	::== a b c ... z	
space	::== <i>the space character</i>	
digit	::== 1 2 3 4 5 6 7 8 9 0	
boolop	::== == !=	<i>== is test for equality.</i>
boolval	::== false true	
intop	::== +	