Final Project Grammar

Program ::= Block $

Block ::= { StatementList }

StatementList ::= Statement StatementList ::= ε

Statement ::= PrintStatement ::= AssignmentStatement ::= VarDecl ::= WhileStatement ::= IfStatement ::= Block

PrintStatement ::= print ( Expr )

AssignmentStatement ::= Id = Expr = is assignment.

VarDecl ::= type Id

WhileStatement ::= while BooleanExpr Block

IfStatement ::= if BooleanExpr Block

Expr ::= IntExpr

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 ::= the space character
digit ::= 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0

boolop ::= == | != == is test for equality.

boolval ::= false | true

intop ::= +