Our Project Grammar

```
Program              ::== Block $
Block                ::== { StatementList  }               Curly braces
StatementList        ::== Statement StatementList           denote new scope.
                     ::== 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
                     ::== 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                ::== 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

boolop               ::== == | !=                      == is test for equality.
boolval              ::== false | true
intop                ::== +


Comments are bounded by /* and */ and ignored by the lexer.
```