Simple Pascal compiler

Program -> Header Declarations Block.

Header -> **program id**(**input**,**output**) ;

Declarations -> **VAR** VariableDeclarations | **<epsilon>**

**Exp -> term rest**

VariableDeclarations -> VariableDeclaration OtherVariableDeclarations

Rest -> + term

OtherVariableDeclarations-> VariableDeclaration OtherVariableDeclarations | <epsilon>

Term -> 0|1|…|9

VariableDeclaration -> IdentifierList : Type;

IdentifierList -> id OtherIdIist

OtherIdIist-> , id OtherIdIist | <epsilon>

Type -> **integer** | **real**

Block -> **begin** Statements **end**

Statements -> Statement OtherStatements

OtherStatements -> ; Statement OtherStatements | <epsilon>

Statement -> **id** := Expression

| Block

| **if** Expression **then** Statement ElseClause

| **while** Expression **do** Statement

| **<epsilon>**

ElseClause -> **else** Statement | **<epsilon>**

ExpressionList-> Expression OtherExpressionList

OtherExpressionList-> , Expression OtherExpressionList | <epsilon>

Expression -> SimpleExpression Compexp

Compexp -> **relop** SimpleExpression | <epsilon>

SimpleExpression ->Term OtherSimpleExpression | **addop** Term

OtherSimpleExpression-> **addop** Term OtherSimpleExpression | **<epsilon>**

Term -> Factor OtherTerm

OtherTerm-> **mulop**factor OtherTerm | **<epsilon>**

Factor -> **id**

| **num**

| ( Expression )

| **not** Factor