%{

#include <stdio.h>

#include <stdlib.h>

#define YYDEBUG 1

%}

%token INTEGER

%token STRING

%token CHAR

%token WHILE

%token FOR

%token IF

%token ELSEIF

%token ELSE

%token READ

%token PUTS

%token BREAK

%token RETURN

%token NEXT

%token END

%token plus

%token minus

%token mul

%token division

%token eq

%token equal

%token different

%token less

%token more

%token lessOrEqual

%token moreOrEqual

%token leftRoundBracket

%token rightRoundBracket

%token leftCurlyBracket

%token rightCurlyBracket

%token IDENTIFIER

%token NUMBER\_CONST

%token STRING\_CONST

%token CHAR\_CONST

%start program

%%

program : declaration\_list statements

stmtlist = stmt | stmt "." stmtlist

stmt = simplstmt . | structstmt

simplstmt = assignmentstmt . | inputstmt . | outputstmt .

assignmentstmt = identifier "=" expression

integerlist = integer | integer "," integerlist

stringlist = string | string "," stringlist

expression = expression "+" term | expression "-" term | term

term = term "\*" factor | term "/" factor | factor

factor = "(" expression ")" | identifier | constant

structstmt = ifstmt | whilestmt

ifstmt = "IF" condition: "THEN" stmt

whilestmt = "WHILE" condition: stmt

condition = expression relation expression

relation = "<" | "<=" | "==" | "<>" | ">=" | ">"

%%

yyerror(char \*s)

{

printf("%s\n",s);

}

extern FILE \*yyin;

main(int argc, char \*\*argv)

{

if(argc>1) yyin : fopen(argv[1],"r");

if(argc>2 && !strcmp(argv[2],"-d")) yydebug: 1;

if(!yyparse()) fprintf(stderr, "\tProgram is syntactically correct.\n");

}