<https://github.com/roxanazachman01/FLCD>

**Documentation:**

Started work on yacc:

%{

#include <stdio.h>

#include <stdlib.h>

#define YYDEBUG 1

#define TIP\_INT 1

#define TIP\_REAL 2

#define TIP\_CAR 3

double stack[20];

int sp;

void push(double x)

{ stack[sp++] = x; }

double pop()

{ return stack[--sp]; }

%}

%union {

int l\_val;

char \*p\_val;

}

%token CHAR STRING INT IF ELSE READ WRITE WHILE BEGIN END

%token ' ' '(' ')' '[' ']' '{' '}' ';' '\n' '\t' '\r'

%token '+' '-' '\*' '/' LE '<' GE '>' NE EQ '=' '%'

%token IDENTIFIER

%token <p\_val> CONSTNR

%token <p\_val> CONSTCHAR

%token <p\_val> CONSTSTRING

%token EPSILON

%%

program: '{' decllist cmpdstmt '}'

;

decllist: declaration decllistlala

;

decllistlala: decllist | EPSILON

;

declaration: type IDENTIFIER ';'

;

type: type1 arraydecl

;

type1: INT | CHAR | STRING

;

arraydecl: CONSTNR ']' | EPSILON

;

cmpdstmt: BEGIN stmtlist END

;

stmtlist: stmt stmtlistlala

;

stmtlistlala: stmtlist | EPSILON

;

stmt: simplstmt ';' | structstmt

;

simplstmt: assignstmt | iostmt

;

assignstmt: IDENTIFIER assignstmtlala '=' expression

;

assignstmtlala: '[' assignstmtlala2 ']' | EPSILON

;

assignstmtlala2: CONSTNR | IDENTIFIER

;

expression: term expression1

;

expression1: '+' expression1 | '-' expression1 | EPSILON | expression

;

term: factor term1

;

term1: '\*' term1 | '%' term1 | '/' term1 | EPSILON

;

factor: '(' expression ')' | IDENTIFIER assignstmtlala | CONSTNR

;

iostmt: READ '(' IDENTIFIER assignstmtlala ')' | WRITE '(' writeitem ')'

;

writeitem: lalaitem | IDENTIFIER assignstmtlala

;

lalaitem: CONSTNR | CONSTCHAR | CONSTSTRING

;

structstmt: ifstmt | whilestmt

;

ifstmt: IF '(' condition ')' '{' stmtlist '}' elsestmt

;

elsestmt: ELSE '{' stmtlist '}' | EPSILON

;

whilestmt: WHILE '(' condition ')' '{' stmtlist '}'

;

condition: expression relation expression

;

relation: '<' | LE | GE | '>' | EQ | NE

;

%%

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,"\tO.K.\n");

}