

PARSER EXAMPLE 1

COMPILE

parser:

flex scanner.l → lex.yy.c

bison -d parser.y → parser.tab.c parser.tab.h

gcc -o parser lex.yy.c parser.tab.c -lfl

SCANNER.L

%.E

int lineno = 0;

%.Z

%.Y

[ \t ] E /\* eat white spaces \*/;

[a-zA-Z 0-9 + -] E return yytext[0];

\n E ++lineno; return '\n';

. E printf ("line no: %d unrecognized character '%c'\n",  
lineno, yytext[0]);

PARSER.Y

%.E

#include &lt;stdio.h&gt;

%.Z

%.Y

Goal: Expr '\n'

Expr: Expr Op Term

| Term

;

Term: Number

| Id

;

Op: '+' '-' '\*' '/';

Id: Alpha Id | Alpha;

Alpha: 'a' ... 'z' ('A' ... 'Z')

~~Number: '0' ... '9'~~

Number: Number Digit | Digit;

~~Digit: '0' ... '9'~~

~~int x;~~

yyerror (char \*s) {

fprintf(stderr, "error: %s\n", s);

}

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

yyparse();

printf("Parsing over\n");

}