```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int currentLine = 1;
%}
%option noyywrap
                              [a-zA-Z~][a-zA-Z0-9]*
0|[+|-]?[1-9][0-9]*
[\'][a-zA-z0-9][\']
[\"][a-zA-z0-9]*[\"]
identifier
 integer
char
"entry"|list"|"int"|"char"|"string"|"while"|"for"|"var"|"BEGIN"|"END"|"if"|"else"|"out"|"in"|"finish"
"*"|"-"|"*|"/"|"%"|"-"|"!"|"!="|"+="|"-="|"/="|"*="|"<"|">="|">="|"<="|"||"|"88"
"["|"]"|"{||"}"|"("|")"|","|";"|""|"\""
{identifier}
                                                                                                                                                                                                                      {printf("Reserved word: %s\n", yytext);}
{printf("Operator: %s\n", yytext);}
{printf("Separator: %s\n", yytext);}
{printf("Identifier: %s\n", yytext);}
{printf("Mumber: %s\n", yytext);}
{printf("String: %s\n", yytext);}
{printf("Character: %s\n", yytext);}
 {integer}
{char}
{string}
[\t]+ {}
[\n]+ {currentLine++;}
                                             {printf("Illegal identifier at line %d\n", currentLine);}
{printf(".+ is not a recognised operator");}
[0-9][a-zA-Z0-9]*
%%
 void main(argc, argv)
int argc;
char** argv;
        file = fopen(argv[1], "r");
                fprintf(stderr, "Could not open %s\n", argv[1]);
```

Setup:

Install Lex following this tutorial

Install GCC from here

Run these two commands:

```
PS D:\Faculta\Third Year\First Semester\Forma Languages and Compiler Design\Labs\LFTC\Lab 8> flex lang.lxi
PS D:\Faculta\Third Year\First Semester\Forma Languages and Compiler Design\Labs\LFTC\Lab 8> gcc lex.yy.c
```

We get an executable file, and then we should run:

```
PS D:\Faculta\Third Year\First Semester\Forma Languages and Compiler Design\Labs\LFTC\Lab 8> ./a.exe p1.rg.txt
Reserved word: BESIN
Reserved word: BESIN
Reserved word: And the semester of th
```