

Lexical Analysis

Generate a Lexical analyzer, using [f]lex that recognizes the following tokens:

1. Integer number (with or without a sign)
i.e.: 12, -523, +4250
2. Floating point number (with or without a sign, with or without an exponent)
i.e., 12.46, -15.0, +3.1415, -55.23e5, +123.12e-3, -34.444e+5
3. Identifiers (that can be variable/function names in C)
4. C keywords: (if/while/for/switch/case/break/continue)
5. Telephone number (with or without an international code)
i.e.: 054-878-0246, 03-235-1222, +972-52-211-3467
6. Email address (with 2 or 3 host components)
i.e.: name@gmail.com, name@walla.co.il
7. Address (containing: number, street name, city, state, country)
246 Herzl str, Tel-aviv, Israel, Israel,
2120 Washington Blvd., Washington, Pennsylvania, USA

Submit:

- [f]lex input file specification (SomeFile.lex)
- Generated lex.yy.c file
- Your main() calling yylex() and reporting each <token_type, lexeme>. Your main() function can be in the lex.yy.c file or in a separate file (in which case submit it as well).
- Input test file (SomeFile.txt)
- Transcript of input to compiled generator showing correct lexical analysis of every type of recognizable input (show how your scanner analyzes the input file)

*preferably submit all in an archive (zip or rar).

Links:

<https://sourceforge.net/projects/gnuwin32/files/flex/2.5.4a-1/>