Assignment 2

Due Oct 19, 2015 by 11:59pm **Points** 100 **Submitting** a file upload
File Types zip

Implement the lexical analyzer - the scanner - for PL/0.

Assignment

Your program must read a source code file written in PL/0 and produce:

- The source code file without comments
- The lexeme table
- The token list

You must detect the following errors:

- Variables that don't start with letters
- Numbers and identifiers that are too long
- Invalid symbols

Do not get ahead of yourself and try to detect other errors. The input file is not necessarily grammatically correct and you are not (yet) parsing it for grammar!

If there is an error, print the error and its associated line number to standard output, then halt. If there is no error, print nothing to standard output and output the files below.

Restrictions, Notes and Hints

- Identifiers may not be longer than 11 characters
- Numbers may not be longer than 5 digits
- Do not tokenize comments or whitespace
- Remember that a scanner is just a set of automata!
- ***Test this program on Eustis!***

Filenames

- The input filename will be named **input.txt**
- The source code without comments will be written to **cleaninput.txt**
- The lexeme table will be written to **lexemetable.txt**
- The token list will be written to **tokenlist.txt**

Formatting Notes

Follow the format from the PL/0 reference document version 1, and the example files. (All are available in the "Files" section.)

Submissions

Submit to Webcourses (inside a single zip file):

1. Source code of your lexical analyzer.
2. Instructions to compile and use your program in a readme document. **Indicate the names of all team members in this file.**
3. The record of one successful run, including the input source file and all four output files.