Compiler Construction

Assignment # 02 – Lexical Scanner

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1. To build your own programming language, define the following,
    a. Rules for identifier name (Regular Expression)
    b. Reserve words including data types such as int, float, string etc
    c. Operators
    d. Parathesis
    e. Symbol used for end statement (use any symbol other than ; (semi-colon))

2. Draw a single DFA for your own language (use JFLAP). See "CC lecture 08" (page 3) for the DFA designed for the simple scanner

3. Write a lexical analyzer of Scanner code for a DFA designed in step 2. That is capable of the following,
    a. The scanner should take the source code from a text file and store it in an input tape, say a character array.
    b. The input tape (char array) should have two pointers, i.e, start_point and end_point, you can declare both of them as integer variables. The start_point will keep track of starting symbol index from the input tape. Similarly, the end_point will keep track of the ending symbol index of the character that has been read so far from the input tape.
    c. Exclude spaces, tabs or line breaks
    d. Assign tokens for each valid lexeme (words)
    e. Store these tokens in a symbol table that could be any database, simple excel-sheet or even a text file

NOTE:

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