CPSC 323

Project #1:

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Purpose: create a lexer using fsm.

Design:

***Lexer***:

L = [A-Za-z]

D = [0-9]

RE for indentifier: L(L|D)\*

NFSM using Thompson for indentifier:



RE for integer: D+

NFSM using Thompson for integer:



RE for real: D+.D+

NFSM using Thompson for real:



Operator: ‘=’,’+’,etc.

Keyword: ‘while’, ‘if’, etc.

Separator: ‘(‘ ‘)’,etc.

***Main***:

while not finished (i.e. not end of the source file) do

call the lexer for a token

print the token and lexeme

endwhile