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CS323 Programming Assignments

1. Your Name: Dennis Wu

2. Assignment Number: 3

3. Due Date: May 11, 2016

4. Turn-In Date: May 11, 2016

5. Executable File Name: Assembly.exe

6. Lab Room:

7. OS: Windows 10 64-bit

GRADE:

COMMENTS:

2. Problem Statement

The second assignment is to write a syntax analyzer using our choice of programming language, building off from the first assignment. The program reads a text file generated by the Lexer function and will generate the production rules used for the Rat16S language. The program will output the results to a new text file called “syntax.txt”.

3. How to use your program

Create a new folder and insert the Syntax.exe into the new folder. Insert the test case (text file) and make sure that the name is: **code.txt** (text document format). Then execute the .exe file. The Syntax.exe will produce a .txt file called syntax, which will contain the tokens, lexeme and production rules used inside, it will also generate a tokens.txt because the original lexer function gets called.

To run another test case, remove the current “code.txt” file and insert the next test case. Make sure to rename the new test case file to “code.txt”. Running the program will override the existing output file.

4. Design of your program

Main  
 call Lexer() to get token text file  
 store token/lexeme into arrays  
  
 follow production rules:  
 if (production rule)  
 output to syntax file  
 call nextToken..  
 if (next production rule)…  
 [and so on.. ]  
 else  
 output error to file and exit program

End main

5. Any Limitation  
 Unfortunately, I did not allow myself enough time to complete the project. The code does not run and is incomplete. I will continue to work on the project regardless and make sure it gets completed in prep for the third assignment.

Update: I finished a majority of the Production Rules and the program is able to execute.

6. Any shortcomings  
 Although the program can execute without crashing, the output file: syntax.txt contains incorrect parsing.