CS301P Compiler Design Laboratory Exercises Lab #6

Date: Sep 12, 2022

Objectives

- To learn the processing of attributes of the grammar symbols with different data types.

Exercise

Consider arthemetic expressions containing operators $+$, $-$, $*$, $/$, $-$ (unary minus), pre/post increment/decrement operators, assignment operator ($=$), the parenthesis ( ) and statement termintor (;). Develop a parser to accept the valid arithmetic expressions expressed using the operators given above. You may read one or more c-statements containing the symbols from the given alphabet, from an input file check if each statement is VALID or INVALID.

Submission Guidelines

- The name of the parser executable should be *parser*
- The respective lex and yacc programs can have the same name but with the extension *.l* and *.y*, respectively.
- The names for the given program should be *prob1*, of course with appropriate extensions.
- Other submission requirements remain same as Lab#5.

Referrences

- The syntax of C in Backus-Naur Form:

  https://cs.wmich.edu/~gupta/teaching/cs4850/sumII06/The%20syntax%20of%20C%20in%20Backus-Naur%20form.htm
- C-Language Specification

  https://www2.cs.arizona.edu/~debray/Teaching/CSc453/DOCS/cminusminusspec.html

Evaluation Guidelines and Academic Honesty

Same as Lab#1