CS301P Compiler Design Laboratory Exercises Week-3

Date: Aug 22 2023

Objectives

- To learn a tool *Lex: lexical analyzer generator* through simple exercises

- To understand character classes and regular definitions

- To develop a lexical analyzer for C language

- To understand importance of the symbol table data structure

Exercise

Write a lex program that takes a C-program as an input (through CLI), removes the comments, extra white spaces/tabs/newlines etc., tokenizes all valid C program constructs, such as integer constants, floating point constants, character/string constants, identifiers, keywords, operators, and strore the necessary information of the tokens into a symbol table.

You may display each token and the corresponding lexeme on the screen. Before exit, store the symbol table entries in a separate file named symbol_table.txt.

Submission Guidelines

Same as week#1

Evaluation Guidelines

Same as week#1

Academic Honesty

Same as week#1