CS 152 Project Phase 1 Lab Report

Fall 2018 - Apollo Truong 861168740, Sidney Son 861214496

Motivation

This is the first phase of the class project.

In this phase we used the *flex* tool to generate a lexical analyzer for the high-level source code language,“MINI-L”.

The code itself takes a MINI-L file and breaks it up into tokens that will be printed out line by line. This will be useful later on when using these tokens in the parser portion of the project.

Approach

We used the in-class hand-out to define the following:

```
letter     [a-zA-Z]
digit      [0-9]
number     {digit}+
identifier {letter}({letter}|{digit}|[_]({letter}|{digit}))*
```

We then defined the tokens that will be read and set printf() statements to print the respective token for each symbol read.

Roles

Sidney worked on beginning the mini_l.lex file and debugging the code afterwards. Apollo completed the mini_l.lex file and testing the code on his computer. Apollo also made the makefile. We both worked on debugging and testing the code together for the most part.

Problems

Problems we ran into while developing the lexical analyzer were mostly syntax errors causing the output to print unwanted tokens. For example, we had misnamed the identifier by including an extra parenthesis which caused output to not recognize identifiers and output the identifier itself. Other syntax errors caused our program to have an overflow error and would not run our program. To solve these problems we looked over the code and found the syntax errors.