1. About
   1. Compiler for PL/0 implemented with the C programming language which includes:
      1. Scanner – filename: lexer.c, reads input.txt and produces tokens to be read in by parser.c.
      2. Parser – filename: parser.c, reads output of scanner and parses tokens for virtual machine input.
      3. Virtual Machine – filename: vm.c, reads in PL/0
      4. Compiler Driver – filename: driver.c, interprets directives and executes accordingly.
2. Input
   1. Program will prompt the user to enter the name of the desired input file during runtime.
3. Output
   1. Program will produce different outputs depending on directives provided at time of compilation. Accepted Directives are as follows:
      1. “-l” : lexemes/tokens printed to console.
      2. “-a” : generated assembly code printed to console.
      3. “-v” : virtual machine execution trace printed to console.
      4. No directives: input and output are printed to console.

***Note: Anywhere from 0 – 3 directives may be provided in no particular order.***

1. Compile Instructions
   1. All source files as well as input files must be in same directory.
   2. Navigate to directory where all files reside, including input.txt.
      1. Run “gcc -o parser parser.c” to compile
      2. Run “./parser” followed by directives “-l”, “-a”, “-v” or no directives.
   3. The program will prompt the user for the name of the input file.
   4. Two outcomes are possible:
      1. No syntactical errors are found and a message stating the program is syntactically correct will be printed to the screen.
      2. The program will encounter a syntax error and will print an error message to the screen along with a brief error description.