# Guide to using HW2 PL/0 P-Register Machine Lexical Analyzer:

* To begin, first you must compile the source code labeled “main.c”.
  + To compile, use the GCC compiler and open your OS’s terminal or command prompt.
  + Change directory to the one where “main.c” is located and run a GCC command to compile it.
  + Additionally, you may also rename the compiled version of the file.
  + By default, however, it should compile into an “a.exe” or “a.out” file, dependent upon the OS you are using.
* Next, you must already have a text file holding the code of your source program
  + For example: your source code in the file may look like this:

var x, y;

begin

y := 3;

x := y + 56;

end.

* To finally run said source code, open your terminal or prompt, if you already have not done so, and change directory to where your compiled file is located.
  + Note: This program takes in the text input as a command line argument, the way this program was written allows for two options of doing so:
    - 1. If your text file is within the same directory as your compiled file, you may pass in just the title of your text file as an argument.
      * Example: a.exe input.txt
      * Example: a.out input.txt
    - 2. Else, you must specify the location of your file and pass it in, instead, as your argument.
      * Example: a.exe C:\Users\Abdool\Desktop\Project1\input.txt
      * Example: a.out C:\Users\Abdool\Desktop\Project1\input.txt
* If done properly, you should now see 3 outputs:
  + 1. At the top, you should see the code of the source program that you have passed in.
  + 2. Immediately after that, you should start seeing the lexemes table, each row showing the lexeme name and its token value.
  + 3. Immediately after that, you should see the lexeme list, revealing the lexeme values and the value of the identifier and number digit, if applicable.
* If you would, instead, prefer your output logged to a separate text file, run the same command line but add in “>output.txt” or however else you would like to name your output file.
  + Example: a.exe input.txt>output.txt
  + Example: a.out input.txt>output.txt