## Lab 03

At a high level, this program receives html input, and converts the html to LaTeX using Lex. It does so by defining different strings that should be converted, mainly html tags and regular expressions that represent the content of the tags. Then, using C-like code, the appropriate LaTeX is output. The matches are made using regular expressions, and states, which contain additional logic. To start, the program is in the 0 state, and looks for any stateless expressions. If a matching expression is found, the code under that expression is executed and the 0 state resumes. In PRE, PARA, OL, UL, and COMMENT states, are initiated by the BEGIN <state> code. When the program enters one of these states, it checks for matching expressions that are defined under the current state, and executes the corresponding code which is just a simple conversion from html to LaTeX.

Overall this lab was pretty straight forward. One minor roadblock I had was figuring out how the program would determine which kind of list the tag was in, but I eventually saw the <code>list\_type</code> definition at the top of the file, and figured it out from there.