Frank Ngo & Yifei Feng

Project Assignment 1

**CS323 Documentation**

1. **Problem Statement**

*The program should read a file containing the source code of Rat18F to generate tokens and write out the results to an output file.*

1. **How to use your program**

*Run the executable file Rat18F\_Frank Ngo & Yifei Feng.exe.*

*Enter the input file name (e.g.: input.txt) and output file name (e.g.: output.txt).*

*The program will read from input.txt and write to output.txt.*

1. **Design of your program**

*All of the functions necessary to run the program are in Headers.h*

*main.cpp gets the file names from the user and write data into a string vector.*

*Elements from the vector are then parsed into lexer(string).*

*In Headers.h, there are 6 Bool functions to check if the lexemes are keywords, operators, separators, integers, reals, or identifiers.*

*void deleteComment(vector<string>) will delete comments enclosed within “[\*” and “\*]” from the vector, preventing them from going into the lexer(string).*

*string sep(string) checks when two lexemes are not separated by white spaces and return the correct tokens for them.*

*string lexer(string) returns the correct tokens and lexemes.*

1. **Any Limitation**

*Sometimes there are empty new lines in the output file. We have not been able to pinpoint the bug and fix it.*

1. **Any shortcomings**

*None*