

Project 1 Documentation

Armon Rahimi, Richard Gobeia, Gage Dimapindan

CPSC 323-02

Fall 2020

1. Problem Statement

This programming assignment is based on a language called “Rat20F” which is described as having short grammar and relatively clean semantics.

2. How to use your program

Steps:

- 1) on Linux, navigate to the proper directory – *cs-323-project1* – in the terminal
- 2) in the command line, compile using *g++ main.cpp -o test*
- 3) run the file using *./test*
- 4) enter any one of the test files (*test.cpp*, *test2.cpp*, *test3.cpp*) when the program asks for input
- 5) a *results.txt* file will be created; it will identify the tokens within the inputted file

3. Design of your program

- DFSM (cpp and hpp files) – puts the results of the program in a *results.txt* file

- *Token.hpp* – develops an unordered set of tokens for each individual type (ie keywords, whitespace, operators, etc.)
- *Tokenize.cpp* – gives each token of the input file its type and stores it in a vector of the same type
- *lexer.cpp* – takes the input file's character stream and converts the contents into tokens
- test files (*test.cpp*, *test2.cpp*, *test3.cpp*) – files that serve as test inputs for the program

4. Any Limitation

None

5. Any shortcomings

None