**CS323 Documentation**

About 2-3 pages

1. **Problem Statement**

We want to build a lexical analyzer, which is the first step of creating a full compiler. The lexical analyzer should be able to tokenize text from an input file of Rat18F and separate words as a token or a lexeme. We will be using multiple finite state machines for identifiers, integers, and real numbers to be able to confidently tell them apart from each other.

1. **How to use your program**

*<write detailed steps how to execute your program>*

1. **Design of your program**

*< write major components of your program. Also, data structures you are utilizing, particular algorithms you have chosen etc. >*

1. **Any Limitation**

*<All features are running according to the assignment but you limit your program due to resource limitations, such as*

*Maximum number of lines in the source code, size of the identifier, integer etc.* ***Say ‘None’ if there is no limitation****>*

1. **Any shortcomings**

*<Anything you could NOT implement although that is required by the*

*Assignment.* ***Say ‘None’ if there is no shortcoming****>*