**COVER PAGE**

# **CS323 Programming Assignments**

**Fill out all entries 1 - 7. If not, there will be deductions!**

**Check one**

1. Names [ 1. Abhishek Mhatre], (4pm class [ ] or 5:30pm class [ X ] )

[ 2. Aishwarya Iyer ], (4pm class [ X ] or 5:30pm class [ ] )

2. Assignment Number [ 1 ]

3. Due Dates **Softcopy**  [ 3/5 ], **Hardcopy** [ 3/6 ]

4. Turn-In Dates **Softcopy** [ 3/5 ], **Hardcopy** [ 3/6 ]

5. Executable FileName [ ]

(**A file that can be executed without compilation by the instructor**)

6. LabRoom [ ]

**(Execute your program in a lab in the CS building before submission)**

7. Operating System [ ]

**To be filled out by the Instructor:**

GRADE:

COMMENTS:

Assignment 1 Documentation

1. **Problem Statement**

Write a lexical analyzer for RAT18S language.

2. **How to use program**

To use this program, open the directory containing the entire program file. In order for the lexer to generate an output, open the file named “RAT18S.txt” file and input your code in the RAT18S language. The default input is the sample input provided by the assignment instructions. After inputting the sample code, save and close the file. Next, open the file named “lexer.py”. An output list consisting of all the tokens and their values should be listed. If a word or character does not match the lexical rules, it will not be listed in “lexer.py”. To repeat this process, simply change the content of the text file and run the python file to get an output.

3. **Design of your program**

The program consists of several void and Boolean expressions in order to create the lexical analyzer. The group used parse functions in order to parse through the given text file. We also used Boolean functions to analyze the characters returned from the parse. In order to differentiate between keywords and identifiers, we used a function to check if the keyword is exactly the same as what we have stated in our tuple. If the keyword is not the same as the tuple, then it is an identifier.

4. **Limitation**

None

5. **Shortcomings**





