**CS323 Documentation**

About 2 pages

1. **Problem Statement**

*We are trying to create a Lexical Analyzer that can recognize Lexemes in a given string and categorize them into Tokens.*

1. **How to use your program**
2. Step1) Open shell.py

Step2) Specify the input file (testcase file)

Step3) Hit enter

1. **Design of your program**

*The class Token takes in a type and a value. The type would be the Token and the value is the instance of that token. I.e. the string. The lexer() class performs a walk through the string and depending on the current state of whatever character it is currently on it will either advance to the next string or perform one of the make\_ token functions to create a certain token from that string. Run() performs the lexer() function on a given text file. The shell.py file acts as a manager file to allow the user to choose which file to run as well as ouputs the results back to the user.*

1. **Any Limitation**

*None*

1. **Any shortcomings**

*The Other Token is not working properly. Separates the string into different tokens instead of being an Other Token*

A piece of paper with writing on it

Description automatically generated with medium confidence