To Run the Lexical Analyzer, run the Lexical Analyzer.py and enter the file name (without quotation marks) when prompted by the console.

**Error Types and Strategies**

**Error Code 1: Unrecognized Character.**

**Strategy to overcome: The Compiler removes that element and carry on compiling.**

**Error Code 2: Unrecognized Digit sequence.**

**The Compiler tokenizes the elements before that character, removes that element and carry on compiling.**

**Error Code 3: Invalid Character for Identifier of Keyword Name.**

**Strategy to overcome: The Compiler tokenizes the elements before that character, removes that element and carry on compiling.**

**Error Code 4: EOF Token Not Found**

**Strategy to overcome: The compiler adds the EOF keyword at the end of life, and tokenizes it.**

**Error Code 5: Closing String Character Not Found**

**Strategy to overcome: The compiler ignores the whole text and adds the EOF keyword at the end of life, and tokenizes it, so that the compilation could complete.**

**Error Code 6: Closing Comment Character Not Found**

**Strategy to overcome: The compiler ignores the whole text and adds the EOF keyword at the end of life, and tokenizes it, so that the compilation could complete.**

**Symbol Table File (.sym) Format**

|  |  |
| --- | --- |
| **Index Number** | **Identifier Name** |

**Token File (.out) Format**

* <keyword,val>
* <identifier, val>
* <operator, val>
* <symbol>
* <int, val>
* <str, val>

**Error File (.err) Format**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Line** | **Error Code** | **Error Message** | **Status of Error** | **Action taken or suggest** |