

```

1 package LexicalAnalyzer;
2 import java.io.BufferedReader;
3 import java.io.FileReader;
4 import java.io.File;
5 import java.util.List;
6 import java.util.ArrayList;
7 /**
8  * This is the IO module that receives input file
9  * as well as receives errors from package
10 * classes for the Lexical analyzer package
11 *
12 * @author Derek Trom
13 * @author Elena Corpus
14 * @version 1.0
15 * @since 2020-09-26
16 */
17
18
19 public class IOModule {
20     /**
21      * Create variables for the input text
22      * as well as an ArrayList structure for
23      * the matches generated
24      */
25     private String programText = "";
26     private List<Match> matches = new ArrayList<Match>();
27     /**
28      * <p>
29      * This method is used to retrieve file and create a
30      buffer
31      * to be analyzed
32      * @throws Exception error reading the file contents
33      * @param fileName This is the input filename from the
34      command line
35      */
36     public IOModule (String fileName) throws Exception{
37         /**
38          * Try to construct and read from the input file
39          * and throw an exception if it fails.
40          */
41         try {
42             /**
43              * Create File structure and a BufferedReader
44              */
45             File pascalInput = new File(fileName);
46             BufferedReader rdr = new BufferedReader(new
47             FileReader(pascalInput));
48             String currentLine = "";

```

```

48
49         while (rdr.ready()) {
50             currentLine = rdr.readLine();
51             programText += currentLine+"\n";
52         }
53         programText = programText.trim();
54         rdr.close();
55     } catch (Exception e) {
56         System.err.println("There was a problem reading
the file.");
57         System.err.println(e.getMessage());
58         System.exit(1);
59     }
60
61     /**
62      * Adds headers for the printable table in list
63      */
64     this.addMatch(new LexicalAnalyzer.Match("LEXEME","
SPELLING"));
65     this.addMatch(new LexicalAnalyzer.Match("", ""));
66 }
67 /**
68  * Used to return the text
69  * @return Returns the programText read from the input
file
70  */
71 public String getProgramText() {
72     return programText;
73 }
74 /**
75  * Adds a symbol match to the matches list
76  * @param newMatch match to be added to the list
77  */
78 public void addMatch(Match newMatch) {
79     matches.add(newMatch);
80 }
81
82 /**
83  * Prints out the matches in the list
84  * generated from the program
85  */
86 public void printMatches() {
87     System.out.println();
88     for (Match m : matches) {
89         System.out.println(m);
90     }
91 }
92 }
93

```