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Homework 1

1. The number of lexemes in the code

Line # # of lexemes

Line 1: 4

Line 2: 11

Line 3: 7

Line 4: 9

Line 5: 10

Line 6: 5

Line 7: 7

Line 8: 5

Line 9: 3

Line 10: 1

Line 11: 12

Line 12: 5

Line 13: 1

Line 14: 1

Total number of lexemes : 81

1. Identifying errors in the code

Line # Error Type of error

Line 2 missing semicolon ‘;’ at the end Syntax

Line 7 Type mismatch (0.0 is double) Semantic

Line 10 =+ is rather += Semantic

Line 15 method structure must have a return type. Semantic

Line 18 string should be String Lexical

Line 19 double quotation mark ” at the end of degrees Lexical

3.

1 import java.io.\*;  
 2 import java.util.\*;  
 3   
 4 public class Lexemes {  
 5 public static void main(String[] args) throws IOException {  
 6 BufferedReader br = new BufferedReader(new FileReader("Text.txt"));  
 7 String word = br.readLine();  
 8 String characters=" :;<=>?@[]^\_`{|}!#$%&'()\*+,-./";  
 9 while(word != null) {  
10 String[] separate = word.split(" ");  
11 for(int i = 0 ; i < separate.length ; i++) {  
12 String lexeme = separate[i];  
13 int count = 0;  
14 while(count < lexeme.length()) {  
15 if(characters.contains(Character.toString(lexeme.charAt(count)))) {  
16 if(!characters.contains(Character.toString(lexeme.charAt(count-1)))){  
17 System.out.println();  
18 }  
19 System.out.println(lexeme.charAt(count));  
20 }  
21 else {  
22 System.out.print(lexeme.charAt(count));  
23   
24 }  
25 count++;  
26 }  
27 System.out.println();  
28 }  
29 word = br.readLine();   
30 }   
31   
32 }  
33   
34 }  
35

Output: A close up of a logo

Description automatically generated