**Metric Outline for Source Lines of Code**

This program is meant to count the logical source lines of code (SLOC), as well as reportthe scope of curly braces at each level.

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1. Statements requiring semi-colons constitute lines of code.

* int a = 16;
* ArrayList<String> list = new ArrayList<>();

As far as the program is concerned, this includes empty and even illegal statements (as long as the statement properly ends with a semi-colon).

* a is 16;
* ;;;; // This would be 4 logical lines of code

Note: Semi-colons are not used to count lines of code if they are within quotations or comments.

2. The declaration of classes and methods each constitute one logical line of code, counted by their { } scope.

* public static void main(String [] args) {
* public class Box {
* private static String thisBox(String name) {

Note: The closing curly brace ‘}’ is not counted again as its own line of code.

3. Statements consisting of the keywords ‘for’, ‘while’, ‘do’, ‘if’, ‘else’, and ‘switch’ each constitute one line of code.

* while (a > b) {
* for (int i = 0; i < 10; i++) {
* do { } while (a > b); // This would be 2 lines of code

Note: The semicolons in the ‘for’ statement do not get counted as additional lines of code.

4. Single (//) and multi-line (/\* \*/) comments do not count as logical lines of code, nor do blank/empty lines.

5. Statements which make use of ‘:’ as well as ‘case :’ constitute one line of logical code.

6. @ annotations (where @ appears outside quotes or comments) constitute a line of code.

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Some final comments about the program:

The program is not necessarily a Java syntax checker, even though some aspects of the syntax are checked. There is some degree of assumption that the Java code being provided is mostly free of syntax errors, so that key words and symbols (like ‘for’ and ‘;’) can be counted, in order to make the final SLOC report as reliable as possible. The program is more concerned with making sure to count things that are legal, and less concerned about inadvertently counting things that aren’t.   
A note on {} scopes: Only {} scopes with physical brackets are counted. Statements (such as ‘for’ and ‘if’ statements) lacking brackets are ignored.