A picture containing text, outdoor, sign, clipart

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**Program:** Software Engineering

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**Module:** Software Metrics

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**Topic:** Assignment 1

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**Github Repository:** <https://github.com/LucilleNU/SM_2021>

**Date:** 23.11.2021

**Report I**

# LOC & PLOC Metrics

Source Lines of Code (*SLOC*) also known as lines of code (LOC), is a software metric used to measure the size of a computer program by counting the number of lines in the text of the program's source code.

* LOC: This is is a count of lines in the text of the program’s source code including comment lines
* PLOC (Physical lines of code): counts all lines of code in the program file.
* LLOC (Logical lines of code): is the number of programming language statements in the code.
* Comments: Counts the number of comments for the program.

To calculate the metrices explained above, I used Radon. This a Python tool that computes various metrics from the source code. Radon can compute:

* **raw** metrics (these include SLOC, comment lines, blank lines, &c.)
* **Halstead** metrics (all of them)
* **Maintainability Index** (the one used in Visual Studio)

**Before Code Improvement:**

**Text

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**After Code Improvement:**

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**Report II**

# Improving Metrics

Firstly, I used Pylint to improve my code. You can find below images showing my progress during this process and my initial and updated code version. Also, my source with both versions can be found in my [Github repository](https://github.com/LucilleNU/SM_2021) .

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Side by side comparison of two versions of the code

Graphical user interface

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Table

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# LOC Metrics for HelloWorld.java

Graphical user interface

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