PL401µ Optimisation Practices and Tips for Python Code

Mission 1: Improving existing code

This assessment evaluates the following competencies:

- *PP601 – Measure the execution time of a given Python program*
- *PP703 – Optimise a Python program to improve execution speed*
- *PP603 – Audit a given Python program regarding its performances*

You may also be assessed on the following competencies:

- *PP602 – Profile the execution of a given Python program*

This mission asks you to find a single-file small Python program available on GitHub or Gist (about 50–100 lines of code), that can be executed as a standalone program, and to improve its execution speed. To identify where it may be relevant to modify the program, you may need to first profile its execution, in addition to measuring its global execution time.

To succeed the mission, you have to effectively improve the execution speed of the program and prove that you managed to do it while keeping the same behaviour for the program. For example, you may perform some tests and time measurements before and after your modifications. You also have to explain the modifications you made and why they contribute to improve the execution speed.