PL401μ Optimisation Practices and Tips for Python Code

Coding 3: Writing memory-efficient code

This assessment evaluates the following competencies:

- *PP701 – Understand the main Python idioms*
- *PP702 – Write good Pythonic code for small programs*
- *PP602 – Profile the execution of a given Python program*

You may also be assessed on the following competencies:

- *PP603 – Audit a given Python program regarding its performances*

This coding assessment asks you to write one program to demonstrate that the use of generators do improve the performances of a Python program in term of memory consumption. Write one program without using generators and one using them, doing the same thing, and perform measures to demonstrate how much memory has been gained.

To succeed the assessment, you have to show how to run your code and to explain your findings in term of memory consumption improvements you managed to obtain with generators. You also have to explain what are the bad practices you identified in the program example that do not use generators.