Fall 2019
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PL401μ Optimisation Practices and Tips for Python Code

Coding 4: Recursive function

This assessment evaluates the following competencies:

- *PP601 – Measure the execution time of a given Python program*
- *PP703 – Optimise a Python program to improve its execution speed*
- *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 using a recursive function to demonstrate that the use of memoisation may improve the execution time of a program, but given that some memory is sacrificed. Write one program without using memoisation and one using it, doing the same thing, and perform measures to demonstrate how much time has been gained, compared to the memory that has been lost.

To succeed the assessment, you have to show how to run your code and to explain your findings in term of execution time improvement related to memory consumption lost you managed to obtain with memoisation (try to change the size of the allocated memoisation cache).