

Lab Sheet: Python Advances Language Features

This lab sheet covers the section on Python Advanced and Functional Language constructs from the course on *Industrial Programming* (F21SC): <http://www.macs.hw.ac.uk/~hwloidl/Courses/F21SC#slides>. These exercises should be implemented in Python 3. The tasks can be performed on your local machine (using either Linux or Windows) or on the Linux lab (EM 2.50) machines in the department (accessible through x2go).

Most exercises are available from the `gitlab-student.macs.hw.ac.uk` server, and these are marked as 🍌. Use this HOWTO do exercises with the gitlab server for an introduction how to do these exercises and how to use the unit testing in the continuous integration backend to get immediate feedback on your solution. Try this hello world exercise, alongside watching the HOWTO, to try this yourself.

Python Advanced Language Features (Week 10)

For coverage of advanced language features in Python see this slide side with embedded exercises.

(MatrixOvld) Define a class `Matrix` and overload the operations `+` and `*` to perform addition and multiplication on matrices.

(MatrixOps) Define further operations on matrices, such as `m.transpose()`, `str(m)`, `repr(m)`.