# VG101 — Introduction to Computer and Programming

Worksheet (chapter 7)
Manuel — UM-JI (Fall 2018)

## Worksheet concept

- Simple exercises based on the slides
- Optional personal work
- No submission, no grading
- Only refer to websites in English

### **Ex. 1** — Slide questions

Ensure you can answer all the questions appearing in chapter 7.

## Ex. 2 — Arrays

On a user input of 10 marks, calculate the mean, the median, the variance, and the standard deviation. Each calculation should be done in a separate function and variables stored in an array.

### Ex. 3 — Matrix

- 1. Create A, a  $1000 \times 1000$  matrix composed of random integers.
- 2. Display all the elements of A in reverse order.
- 3. Read the elements of A by row.
- 4. Read the elements of A by column-major.
- 5. Compare the time taken in the two previous cases.

## **Ex. 4** — Structres and pointers

Using a pointer redo the work from slide 4.21 in C.