

## VG101 — Introduction to Computer and Programming

### *Worksheet (chapter 7)*

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#### 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.?? in C.