## **Software Architectures**

## **Assignment 2: Expression Problem Applied**

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Deadline: January 14th, 2018, 23:59

## Description

For this assignment, you need to extend the *Cook* class of the project *used* in the first assignment<sup>1</sup>. The current implementation of this class can only prepare orders related to *eggs*. Using the *Visitor*<sup>2</sup> design pattern, you will extend the *Cook* class to support the preparation of multiple and different orders. The new version of the *Cook* class must support receiving a *list* of orders to prepare, where each order contains information about its *type* and *style*. For example: (Egg, SunnySideUp), (Bacon, American), (Waffle, Brussels). In the previous examples the first element is the *type* of the order, while the second one is the *style*. Implement and extend the required abstractions to support Egg, Bacon, and Waffle orders. Consider the following styles:

• Bacon: American, Candied, Applewood

• Waffle: Brussels, Leige

**Deliverables** A short report (in English) explaining the new solution to the problem, and where you compare it to the original code. The report file should follow the naming schema firstname\_lastname\_SA2.pdf, and it should be handed in as a PDF file. For example: Humberto\_Rodriguez\_SA2.pdf.

Submit the report and source code of your solution as a single ZIP file on the Software Architectures course page<sup>3</sup> in PointCarré, by clicking on Assignments (Opdrachten) > Assignment 2.

**Grading** The assignment will be graded and can become subject of an additional defense.

<sup>&</sup>lt;sup>1</sup>You can use your solution to assignment 1 or the original version of the *DDDOnionCookExample* available on PointCarré.

 $<sup>^2</sup>$ See lecture

<sup>&</sup>lt;sup>3</sup>Use the English variant "Software Architecture<u>s</u>", rather than the Dutch one "Software Architecturen".

## **Notes**

- Team work is not allowed.
- The solution to this assignment can be implemented in *Scala* or in *Java*. In case you choose Java, you have translate the original solution to Java yourself.
- Copying from other students, or from the internet will be considered as plagiarism and be reported to the faculty.
- If you use any other resources besides those provided in the lectures and in this document, remember to cite them in your report.