

Aspect-Oriented Software Development 2022/23

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Each question requires you to make one particular choice of what you are going to describe: one particular language, feature, pattern, technique... Do not introduce two or more languages, features, patterns, techniques... Do not make an overview.

Illustrate your answer by examples. Whenever possible, use the corresponding notation to express them.

- 1. (10 b)** Explain one intrinsic aspect-oriented design pattern (not an aspect-oriented implementation of an object-oriented design pattern). Indicate an example of this pattern in actual code in any programming language you want. Explain whether the complexity of this pattern lies in pointcuts, advice, or inter-type declarations.
- 2. (10 b)** Explain one particular modeling concept that supports aspect-oriented software modularization. Indicate an example of it in the corresponding notation. Explain whether this modeling concept aligns more with symmetric or asymmetric aspect-oriented modularization.
- 3. (10 b)** Explain one aspect-oriented feature of a programming language or framework of your choice. Indicate an example of its use in actual code. Explain whether this feature supports symmetric or asymmetric aspect-oriented modularization.