

SE exam 22-06-2013

- I. Please describe shortly the concepts of model and view. Enumerate the models and the views that you know. Please note that it is about the concepts and not about the MVC pattern. 1.5p
- II. A person has 2 parents: a mother and a father and is characterized by sex, age and name. Using the UML please represent the architecture of a model that supports the management of the above information. Please notice that in some cases, one parent or both may be unknown. 1.5 pt
- Using the OCL please specify an invariant requiring that the sex of the mother has to be female and the sex of father, male. Also, please specify another invariant requiring that each parent is at least 16 years older than his children. 1.5 pt
- III. Please describe shortly which is the role of design patterns and mention the name of the activity by means of which design patterns are used to improve the model. What's the name of the similar activity realized in the code? 1 pt
- IV. Which is the motivation of using qualified associations in UML. Using the UML please describe in a class diagram, both by using or not a qualified association, the relationship that exists between a directory and the contained files. In our case, the qualified association enable getting a file by means of its name. Please specify the Java code that can be automatically generated in the class Directory for the method `addFile(String fileName, File arg)`. (1.5+1) = 2.5 pt
- V. Please describe testing in a concise manner. Which is the goal of testing? 1 pt

1 pt by default

working time - 2h