

Voluntary exam one

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- The first voluntary exam will be about domains model and activity diagrams, with a emphasis on domain models.
- This document should guide your reading regarding these diagram
- It is not an exhausting list of question we expect you to answer, but you should do pretty well if you understand all the part of this document.

Domain models

- You should know the syntax and semantics of:
 - Concept
 - Concept name
 - Attribute
 - Association
 - Multiplicity
 - Role name
 - Association name
 - Association class
 - Inheritance
 - Composition
 - Aggregation

Domain models

- You should also know:
 - What is the purpose of domain model
 - What is the difficulty when designing a domain model
 - What is an instance of a domain model ?
 - How can an instance model be used to validate the domain model?
 - What is the purpose of multiplicity ?
 - What do you need to think about when creating a domain model ?

Domain models

- What is the different between composition and aggregation
- What is the different between concepts and attributes
- When should one choose to make an element into concept or attribute
- What criteria apply for defining something to be a concept
- What criteria is it to include an attribute
- How can Class-Responsibility-Collaboration (CRC) cards be used to find responsibility and collaboration?
- What is the purpose of role-names
- What kind of problems can one resolve with domain models

Domain models

- In which way is vocabulary related to a domain model
- When should one use inheritance
- What is the different between domain model and class diagram
- Given a textual description you should be able to create a domain model

Activity diagram

- You should know the syntax and semantics of:
- Call action node
 - Call action node
 - Send signal
 - Accept event action node
 - Accept time event action node
- Control nodes:
 - Initial node
 - Activity final node
 - Flow final node
 - Decision node
 - Merge node
 - For node
 - Join node

Activity diagram

- You should also know
 - what is an activity and activity partitions
 - How to call an activity within a call action node
 - What is an object node and how is it used
 - What is an input parameter
 - What is an interruptible activity regions
- You should be able to create and read these diagram