

Software Engineering

Domain Models

3 Ba INF 2018-2019

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1 Practical

- Deadline: **November 4, 23u55**

2 Context

Before developers can begin writing code, they first have to understand the system they have to implement. Using domain models is a way of exploring the behavior of the system. After this phase the developer should have a clear understanding about the functionalities in the system and in the possible design (which classes are present, how do they interact, ...). In this assignment we will focus on the use of CRC and describe the domain using this method.

3 Assignment

1. Identify every object present in the system and indicate whether or not it is useful to model it into our system (cfr slide 4.18). Use the requirements found in the Introduction.
2. Consider these 5 scenarios:
 - (a) Display Catalog to user
 - (b) Add item to cart
 - (c) Remove item from cart
 - (d) Admin changes order
 - (e) Place order and pay

Make CRC cards for each of these scenarios, using the classes you found in the previous exercise. Use the following guidelines to accomplish the assignment:

- Execute scenarios by using role play.
- During the execution of your role play:
 - Extract the *Responsibilities* and *Collaborations*
 - Build hierarchies
- Evaluate the execution of the simulation, if needed: make changes to the CRC-cards.
- Repeat these steps until every simulation runs smoothly.

During your assessment of the CRC-cards you created you can use the following questions:

- Are classes being called often by the same class?
 - Are the responsibilities in the right place?
 - Are they different classes?
- Does every class contains the necessary information to perform its responsibilities?
- Are there classes with responsibilities that get never executed?
- Are there important classes missing?

For each Use Case we expect you to give the CRC-cards your group has created, together with an explanation on why these classes have been chosen and why you assigned the given responsibilities and collaborations to them. We thus expect an elaborated report that answers all previous questions.

3. Is an Object-Oriented Decomposition the right choice for the given requirements or should we favor a Functional Decomposition? Explain in detail.