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Examination: Software Engineering 2		Time:	120 min
Aids: One double sided sheet A4, simple calculator		Semester:	ST
Name: First name:		MatriculNo.:	

Note: The area left blank on the sheets usually is sufficient for the answer of the questions in terms of catchwords and/or for the solutions. Therefore write your name, semester and your matriculation number on each sheet and use these sheets for the delivery of your answers and solutions.

The stated points for each exercise are tentative and are subject to change.

Exercise 1 ((10 Points)
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a)	What is a	Bounded	Context i	in Domain	Driven	Design?
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b) Name and explain the technique that is used to describe dependencies and integrations of Bounded Contexts.

c) What is the reason to NOT use Database Integration for two related Bounded Contexts?

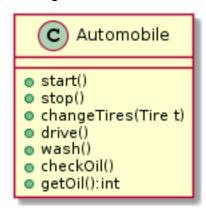
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Exercise 2 (10 Points)

a) Explain "Production-efficiency" in the Values System of Architectural Principles.

b) What is the problem with a Global Util Helper? Which principle is violated?

c) What is the problem with the following class? Draw a possible solution as UML diagram.

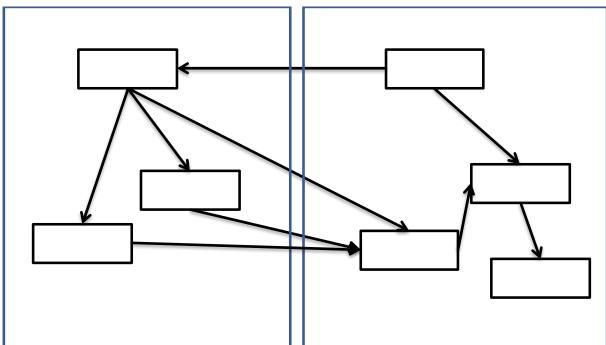


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Exercise 3 (19 Points)

a) Given is the following dependency graph of a system with two subsystems. Calculate the CD (Component Dependency) of all components and also calculate the CCD and the ACD.



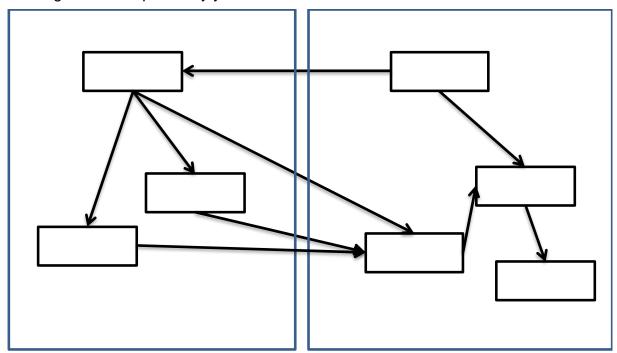
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b) Optimize the system by **decoupling** the two subsystems **and** eliminate the cycles.

c) Calculate the CD, the CCD and ACD of your solution for b) (treat interfaces like classes).

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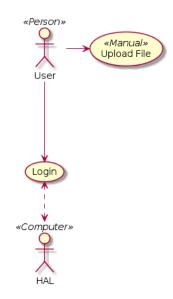
d) Use the dependency graph from part a). Calculate the Instability (metric from Robert C. Martin) for each class. Mark the **two** most problematic classes in the diagram and explain why you marked it!



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Exercise 4 (21 Points)

a) Draw the metamodel for the following UML-model (Use-Case diagram). Only include the necessary parts!



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b) Draw the meta-metamodel for your solution of a)

c) What is Xtext and what is Xtend? Explain both.