

Softwaretechnik II

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Topic 5

Use Cases – Flipping the Classroom

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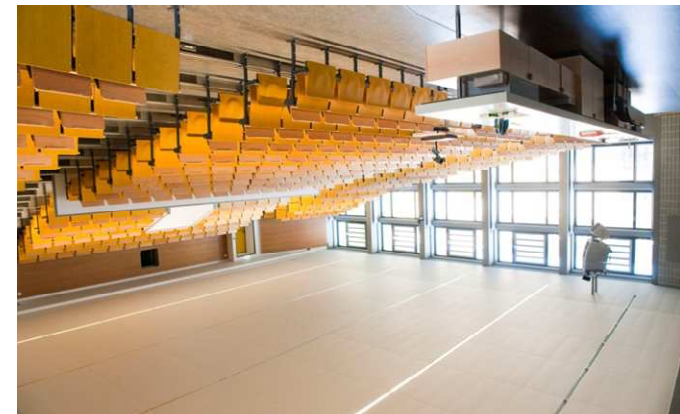
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Idea: Flipped Classroom

- Merely going through a set of slides may sometimes seem like a waste of times
 - students could prepare the content on their own convenience
 - which would free the lecture time for interaction and discussing the real issues
 - such as those topics that were not well understood
- It also frees time for more hands on exercises

■ *Let's try this with
use cases today!*



1. Describe the basic system model that can be seen as a prerequisite for applying use cases
2. As the term “use case” is somewhat overloaded, please explain at least two interpretations of it.
3. Why do we need use cases and what is the conceptual difference (resp. advantage) compared to functional decomposition that was used in the decades before?
4. What are the most common goal levels that can be found in the context of software development?

5. Define the concept of a “user goal use case”.
6. Which heuristics can be used to determine whether something is a good user goal use case?
 - Apply them to the following examples:
 1. process a claim in an insurance company
 2. create customer account in a video store
 3. book a flight ticket on an online platform
 4. login to your online banking account
 5. retrieve a list of customer accounts
 6. check credit card data in an ATM
 7. withdraw money from ATM

Let's practice a bit ...

■ *Identity the correct goal level for each activity*

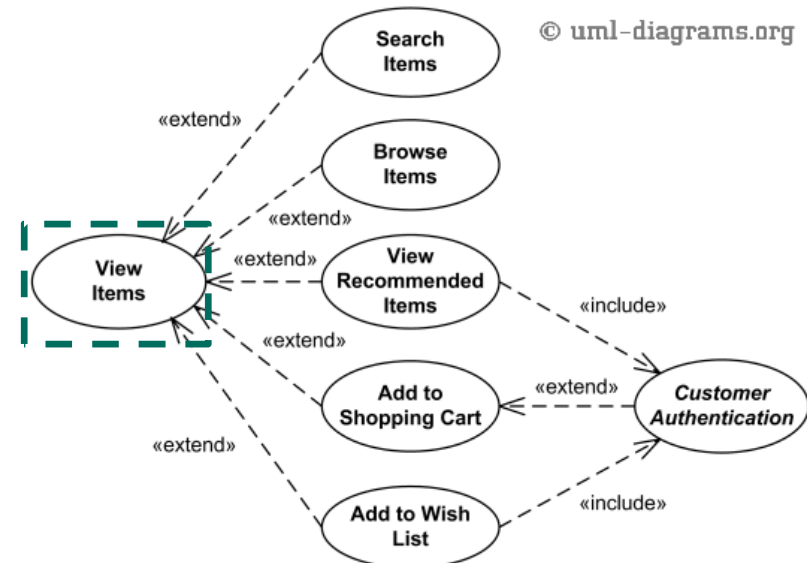
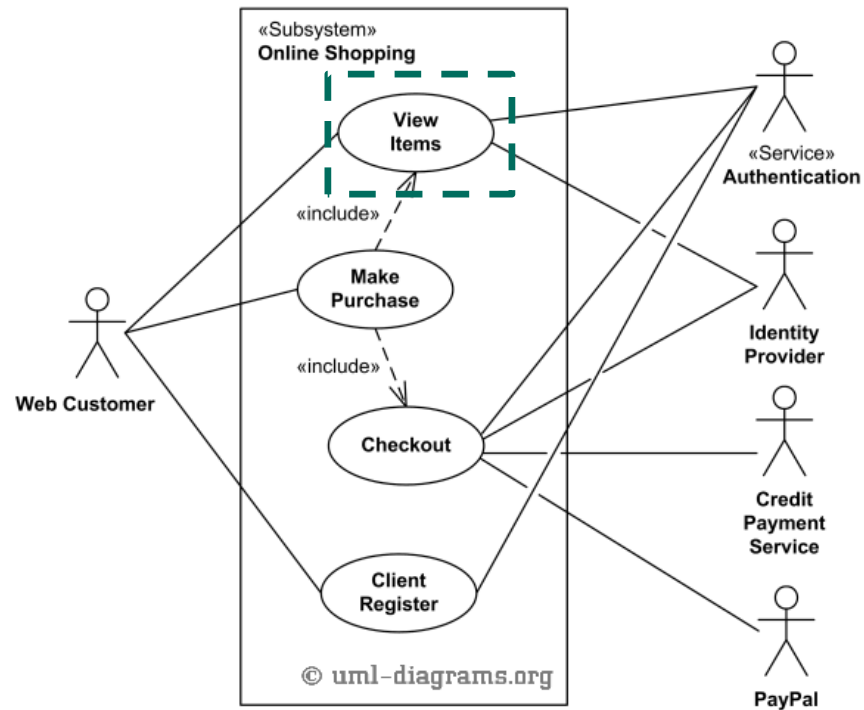
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Summary Use Case User Goal Sub Use Case System Operation

7. Which heuristic is helpful to distinguish <<include>> and <<extend>> in a use case diagram?
8. In practice you rarely see use cases and user stories used in conjunction. Any idea why? Discuss their relation and potential synergies.
9. What is the heuristic that helps to validate a valid use case step?
10. Explain the terms use case, scenario, actor, use case model and transaction in the context of use cases.

UC Example II

11. Which questions may arise from the UC diagrams shown below?



12. Analyze the following success scenario of a user goal use case for an online shop:
 - 1) Customer starts his computer and logs into the internet. He goes to the website of the Online Shop system to order the goods.
 - 2) He browses the catalogues of the various products that have been displayed for sale.
 - 3) He chooses the product that needs to be purchased based on the information available and the sale decision.
 - 4) He makes sure that the address where the product should be delivered is mentioned and chooses the relevant payment option.
 - 5) He makes the payment and get the acknowledgements for the purchase along with some form of transaction log giving him proof of the purchase.
 - 6) He receives the goods in is house via the delivery mechanism.

13. Explain the elements of the Fully Dressed Use Case template presented in the lecture slides.
14. Apply the use case notations presented in the lecture (brief, casual, fully dressed) on the following user story:

As a customer I would like to withdraw money from the ATM in order to have cash at hand.