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Lab 02: Scenarios, Use Cases, and Use Cases Diagrams

In order to develop use case scenarios, we went step by step through an ordering process on basis of our experiences with web applications. Beginning with the registration and ending with drawing statistics we tried to develop standard and exceptional cases and to sum them up in a use case diagram. Here are our use cases:

Name	User registration
Actors	User, administrator
Precondition	User is not registered, email address is not known to the system
Sequence of steps	1. User calls domain 2. Already registered? Go on with “Login” 3. Input personal data 4. confirmation mail
Postcondition	User is logged in and data is saved in database

Name	Forgot Password
Actors	User, administrator
Precondition	User forgot his password, email is already known to system
Sequence of steps	User clicks on “forgot password! User needs to type in his email User receives a “reset password” mail User confirms by clicking on link User types in new password
Postcondition	User data is updated, user can login

Name	Login
Actors	User, administrator
Precondition	User is already registered (if not, go on with “User registration) and knows his password (if not, go on with “Forgot password”)
Sequence of steps	User types in email and password and is able to order things
Postcondition	User sees the interface for logged in users

Name	Order process
Actors	User, administrator
Precondition	User wants to order something and is at home/ at work, user is logged in and sees the interface for logged in users
Sequence of steps	1. Choose 1 bread 2. Choose at most 2 main ingredients 3. Choose vegetables (default is everything, user can ‘uncheck’ items) 4. Choose at most 2 sauces 5. Choose between regular and large size 6. If user wants another hoagie, repeat step 1 to 5, elsewhise go on with step 7 7. Choose pickup or delivery 8. Choose delivery address

	9. If delivery address is not equal to billingsadress, user also needs to give billing address details 10. Give payment details (paypal, debit, creditcard) 11. If paypal forwarding to paypal website 12. If creditcard type in creditcard data 13. If debit card subscribe to direct debit mandate 14. Control order and submit 15. confirmation mail with estimated pick up/ delivery time
Postcondition	Order is delivered to foodpreparer

Name	Food preparer get information to prepare hoagie(s)
Actors	Food preparer, administrator, customer
Precondition	Customer order has been received, Food preparer is registered and can be assigned to the system, administrator sends information to food preparer about composition of the hoagies
Sequence of steps	1. Food preparer takes the form sends by the adminisrator 2. Food preparer starts to prepare food using the form giving by the administrator 3. After the preparation food preparer starts to pack the food 4. Food preparer confirm that food is ready for collection and delivery
Postcondition	Administrator get information that the procduct is ready for delivery food preparer confirm that he is available to prepare an next order

Name	Product delivery
Actors	Deliverer, administrator, customer
Precondition	Administrator received the information that the food can be delivered Deliverer is registered and known by the administrator (system) Deliverer confirm that he is free and available to deliver
Sequence of steps	1. Deliverer gets information to deliver the product 2. Deliverer collects and packs the product 3. Deliverer drives to the address of the customer 4. Deliver hands over the product to the customer 5. Deliverer confirms delivery
Postcondition	Hoagies has been delivered to the customer The order is complete and Deliverer is ready for a new one

Name	undeliverable
Actors	Deliverer, administrator, customer
Precondition	Order was submitted and delivery attempt made
Sequence of steps	1. customer was not neither present nor reachable 2.Supplier indicates why order can not be delivered and cancels the order 3. customer receives information mail 4. After unsuccessful delivery, the order will be returned
Postcondition	Order was canceled and customer informed about reason

Name	Selfie

Actors	Deliverer, administrator, customer
Precondition	Delivery has been successfully delivered and customer is currently eating
Sequence of steps	1. Supplier confirms delivery 2. Customer receives email "We hope you enjoy it, get your 5 Euro voucher now and upload a photo of yourself with Hoagie" 3. Customer clicks link in email 4. Customer comes on rubric Selfies and Comments 5. Customer clicks on "Upload photo and save voucher" 6. Upload file form - Customer uploads image from own files 7. Customer adds short comment of eating experience 8. Customer must accept Terms and Conditions and Privacy Notice 9. Customer clicks "upload image" 10. Image is stored in database to which manager has access → statistics 11. Coupon code will be generated and sent by email to customer 12. Confirmation screen "Thank you for attending, you will receive mail from us"
Postcondition	Customer can view his picture and that of many other happy customers in the Selfie and Comments section and share them through many social networks

Name	Monthly statistics
Actors	administrator, manager
Precondition	The system is running at least for one month and orders have been made in order to get statistics
Sequence of steps	1. manager logs in to backend 2. manager clicks on "generate monthly report" 3. the report shows Income and expenditure, amount of consumed ingredients, new and existing customers, and sales per day 4. he/she can export the file as csv
Postcondition	In the end the manager has a montly report

As ingredients, we set the following items:

Bread
White bread
Full grain
rye

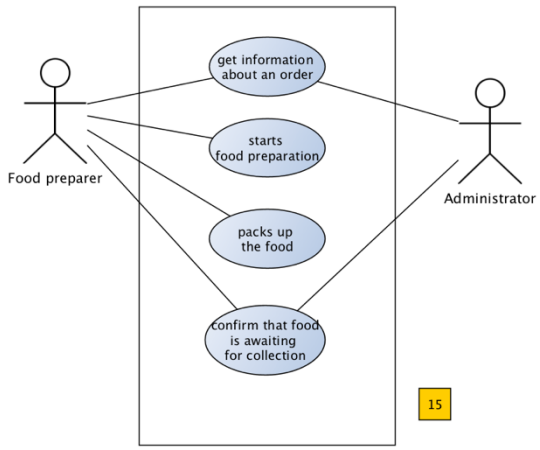
Main ingredients
Turkey
beef
chicken
cheese
tuna
pulled pork
tofu
Vegetables
salad
aragula
onions

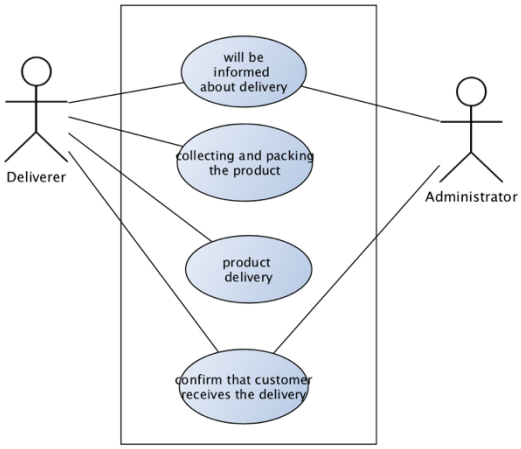
tomatos
cucumber
jalapenos
corn
Sauces
garlic
herbs
curry
hot
peanuts
ketchup
mayo

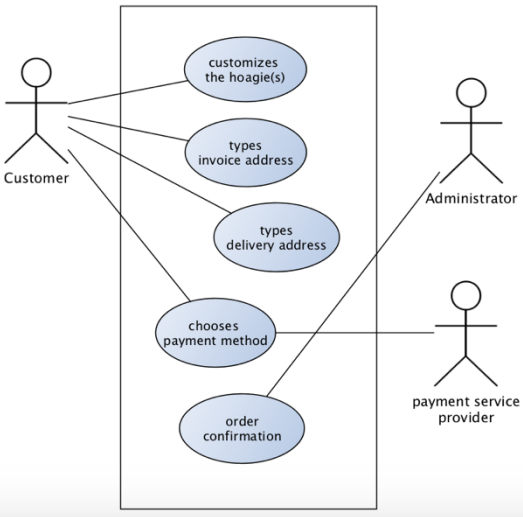
The actors in our scenarios are:

User: the customer, who uses the application to order hoagies
Administrator: the admin controls the technical part of the ordering process, cares about the system
Food preparer: prepares the food
Payment service provider: services to pay the food, as for example paypal, maestro, etc.
Manager: he wants to gain information and statistic about the user behavior
Deliverer: picks up the prepared food and brings it the customer

We started to make a use case diagram for each use case:







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To combine all those use cases in a general use case diagram we took all our use cases and all affected actors and drew the following diagram:

Time: 7 hours
Reflection:

Luc: At the beginning of this exercise we started to create a lot of scenarios. Each of us developed at least 4-5 scenarios. Until we realized that most of the scenarios resembled each other or did not refer to our main business process, like what has the system to do and not how it has to do. As a result, we tried to find most important requirements of our system and to reflect them as use-case diagrams.

Leonie: We made the experience that it is very easy to run into too much detailed scenarios. At first, it does not matter what exactly an automated confirmation mail looks like or how exactly food compilations might look like. We learned to not get too far into detailed processes but to look at the overall context at first, which actors are to be considered and which scenarios. This is much more difficult because which seems unimportant for now, might be a “project killer” later.