Food Waste

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Summary

The primary objective of the second laboratory assignment is to design the system and required changes. While in the first laboratory work we analysed business and all its processes, this time the attention on existing system and the changes.

The main tasks of this iteration:
1. Domain model.
2. Use cases.
3. Sketches.

Contents

1 Context

For a system to be successful, it must be developed with the intention of solving a real-world problem, which, in our case, is reducing food waste in restaurants and shops. The software is useless if it does not solve required problem. In this part we analyse our problem and how it is intended to be solved.

1.1 Goal of the system

Reduce food waste by distributing it.

1.1.1 The problem

Not all food products are sold before spoiling, sometimes restaurants do not use all the food they have bought.

1.1.2 Solution

Prepare a plaftorm that would stand as a middle man helping people sell excess food while allowing others to buy it cheaper.

1.2 Planned changes

To further develop and increase the functionality of the existing system we created several tasks:

User registers to the platform and creates Restaurant account. User can have multiple restaurants (restaurant group). They can be added or removed when the user creates or edits profile data. When food product is added for the restaurant, user can choose one or more restaurants.

Every food Product has an allergens list. The list can be changed when the product is added or modified.

User can have Reservations of food products. Payment information is provided with the reservation.

User can have its favourite restaurants. In the page of a physical restaurant the user subscribes to the restaurant and its added to the favourite retaurans listm. The notifications are sent whenever the new products are added to the FoodWaste system favourite restaurant. User can also get notifications when an individual product is favoured.

1.2.1 Change list

- Restaurant might have multiple addresses.

- Remove reservation.

- Allergens tags on food products.

- Notifications for selected restaurants (whenever they add a new product)
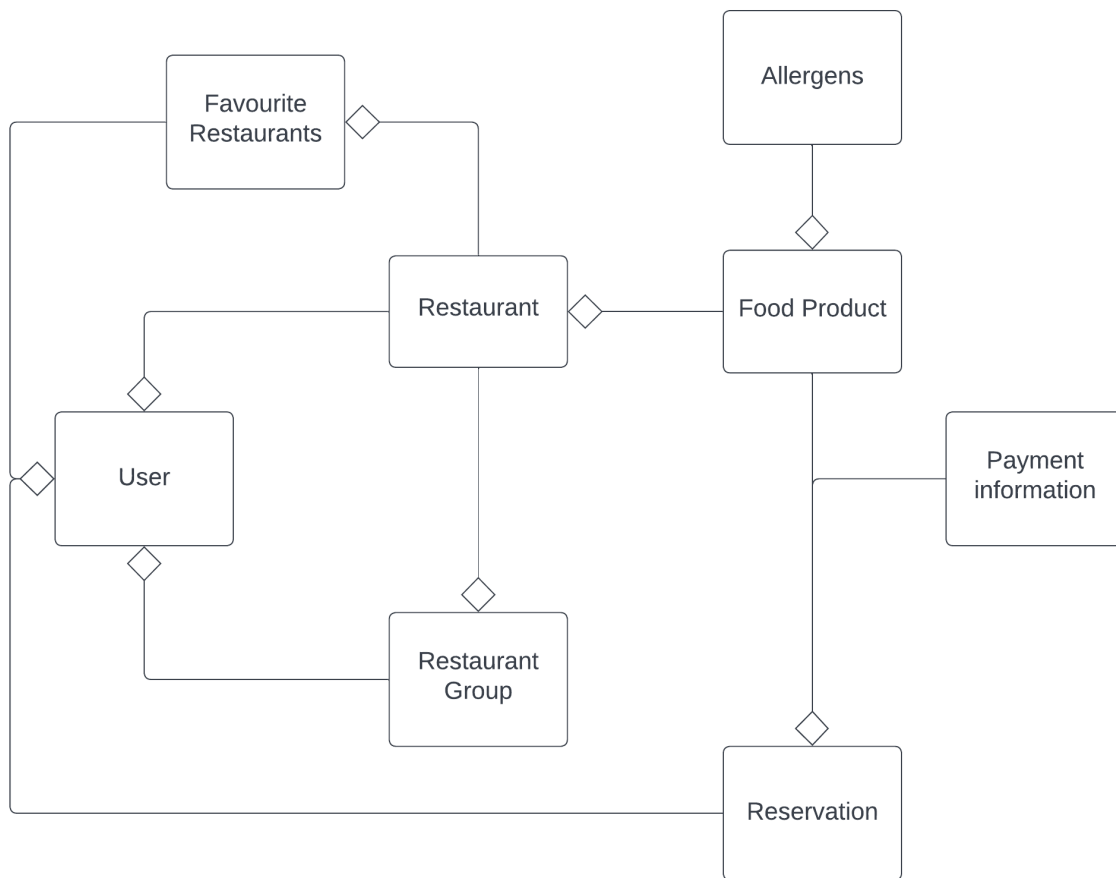
1.2.2 Impact of changes

1.2.3 Domain model

Figure 1: Domain model

1.2.4 Glossary

1.2.5 UI sketches

1.2.6 Use case models

1. Multiple addresses for restaurant.

Main scenario (adding new address): Administrator of the restaurant presses account bubble in the top right corner of the main screen. Multiple options show up in a list. Administrator presses "Account settings". Settings screen contains "Addresses" subsection. User clicks green "Add new address" button. User inputs the address and presses save.

- If the address is found in google maps – green "Address added" modal shows up in top right corner. User profile shows multiple addresses (including the new one) under "Addresses" subsection.

- If the address is not found on google maps – red "Address not found on google maps" modal shows up in the top right corner. User profile shows old addresses under "Addresses" subsection.

Alternative scenario (removing one of the addresses): Administrator navigates to "Addresses" subsection in profile settings (as described in main scenario). User sees red crosses near each address. Hovering over red cross displays a tooltip "Remove this address". User presses the button. Confirmation modal shows up with "This will remove all listings of this address". User may proceed or cancel deletion.

- If the address is not the last – address is removed as well as all listings associated with it. Green modal shows up in top right corner signaling "Address removed successfully"
- If the address is the last one – red cross is grayed out. Hovering over the button displays tooltip "Cannot remove the last address".
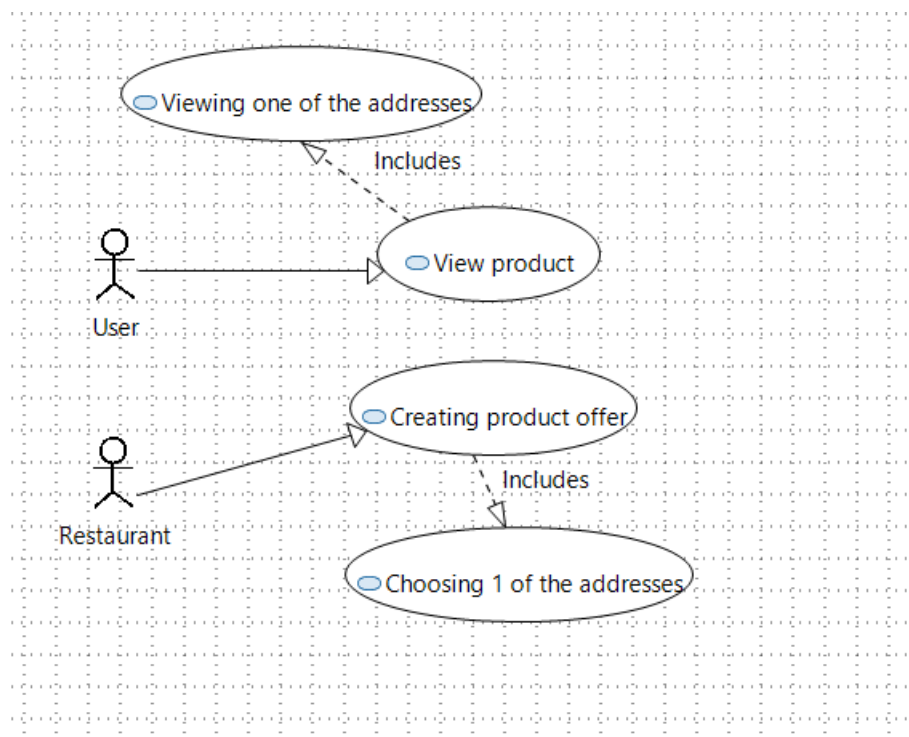

Figure 2: Use case diagram

2. Removing reservations Main scenario (cancelling reservation): User clicks on "My reservations". New page with the list of reservations is loaded. Red crosses are displayed over each one. Hovering over red cross displays tooltip "You may cancel this reservation". User clicks the button. Modal warning window pops up with the text "You are about to remove reservation. Doing this more than once in 24hours may result in negative reputation (keep in mind, that not arriving on your reservation *will* result in negative reputation). You may read about this more in our F.A.Q (link). Do you want to remove reservation?".

- User presses cancel and same reservations page is displayed.
- User confirms reservation removal. Reservation is removed from the list. In the top right corner green modal pop up displays "Reservation removed successfully".
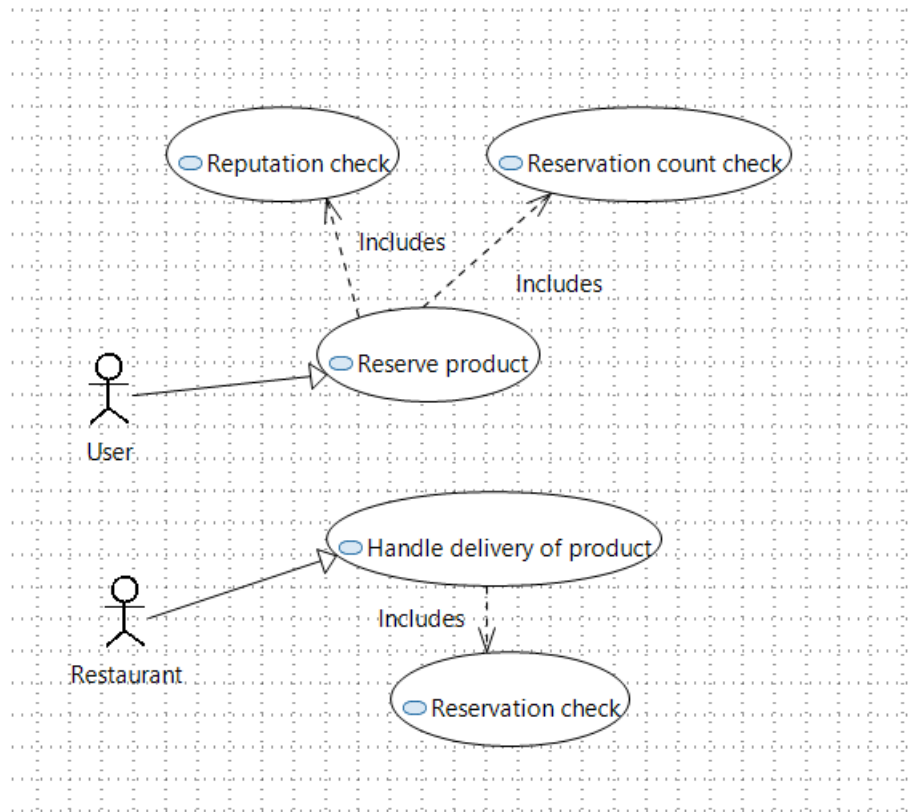
Figure 3: Use case diagram

4. Notifications for chosen restaurants

Main scenario: In the page of a physical restaurant the user presses a crimson button with white text, saying "Favourite" to add this physical restaurant to their list of favoured restaurants and to receive notifications when this restaurant has any updates in their product inventory. The system reports successful subscription by making the button become white with ruby outline and text, saying "Favoured". The system shows the restaurant in the "Restaurant notifications" tab in "Favoured restaurants" page. When the restaurant updates their food product information the system sends the user a notification about the update. The user clicks "Restaurant notifications" tab to see updates from all their favoured restaurants or clicks on "Favoured restaurants" in this tab to see the list with their favoured restaurants that have been updated since last time they checked. When clicking a specific restaurant in "Favoured restaurants" page the user sees what exact products were added.

Alternative scenario: In the page of a physical restaurants product list the user presses a dark lilac button saying "Favourite" to add this specific product from this specific physical restaurant to receive a notification when this specific product can be purchased from this store. The system reports successful subscription by making the button become white with dark lavender outline and text, saying "Favoured". This way the process is almost identical to the main scenario, except that the user only gets a notification only when the specified products are made available.
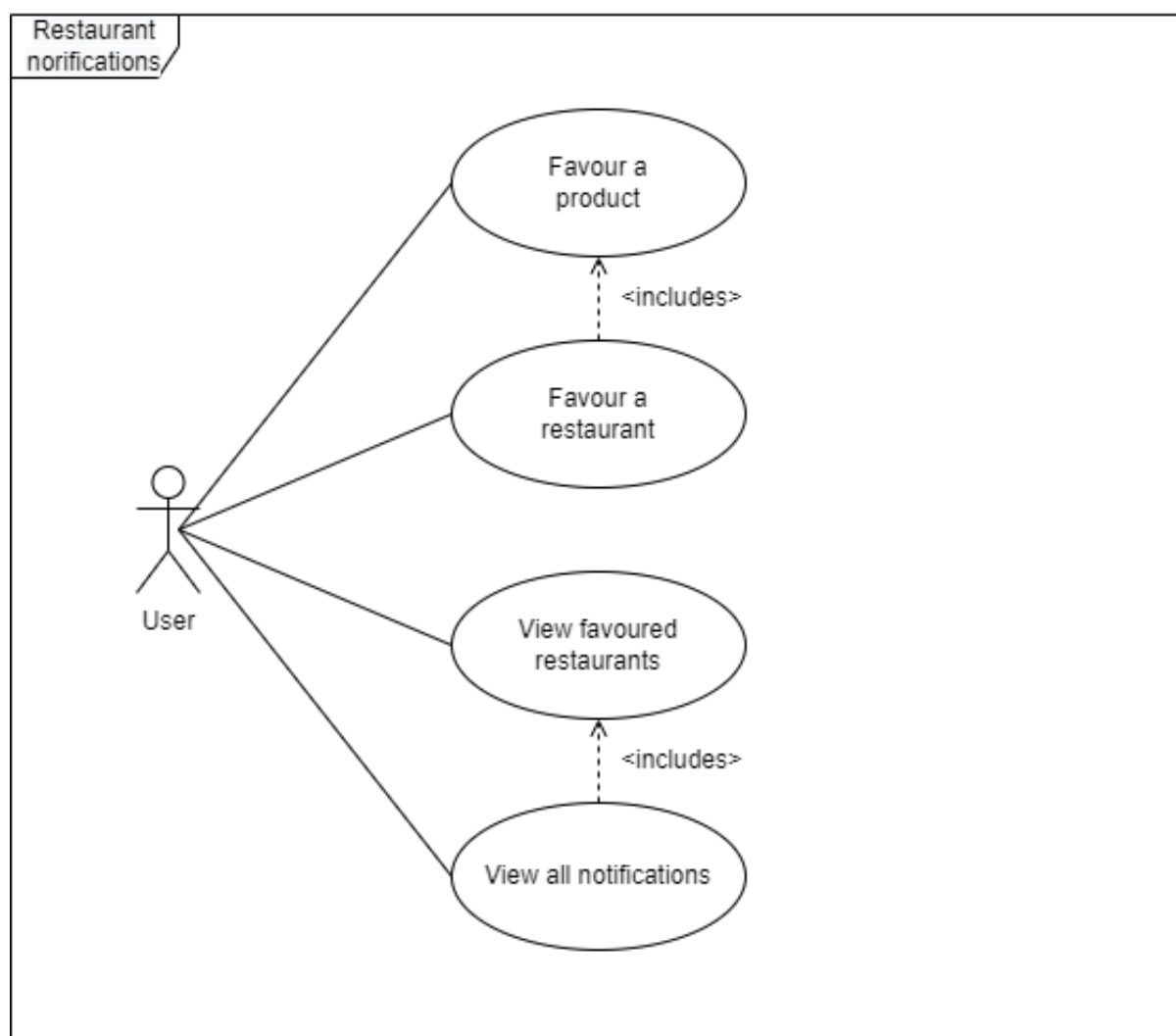
Diagram:

Figure 4: Restaurant notifications
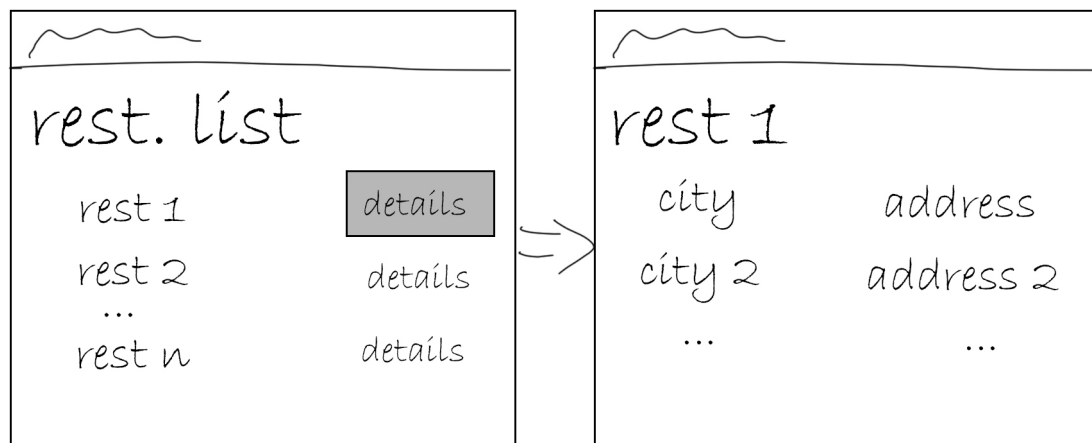
1.2.7 GUI Sketches

Figure 5: Several restaurant addresses sketch

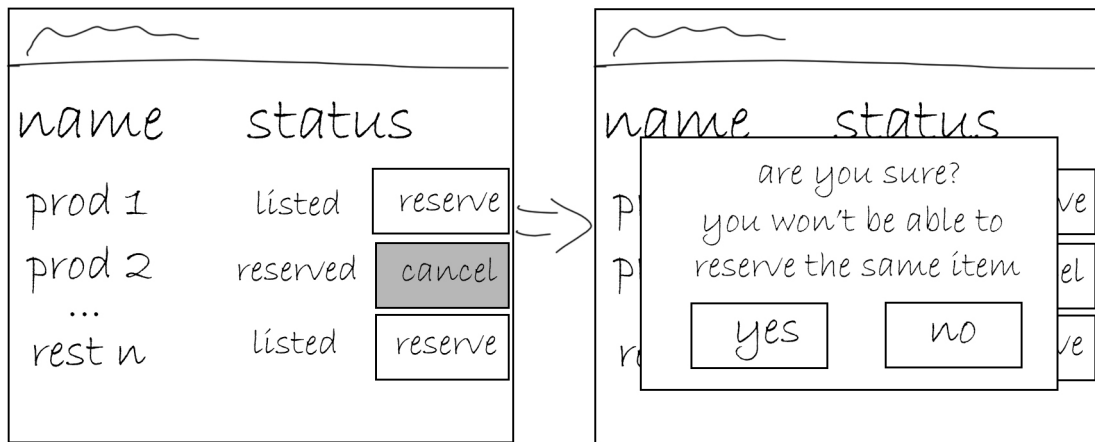### 1.2.7.1 Req. 1 - Several addresses for a restaurant

Figure 6: Cancel product reservation sketch

1.2.7.2 Req. 2 - Cancel reservation

Figure 7: User allergens sketch p1

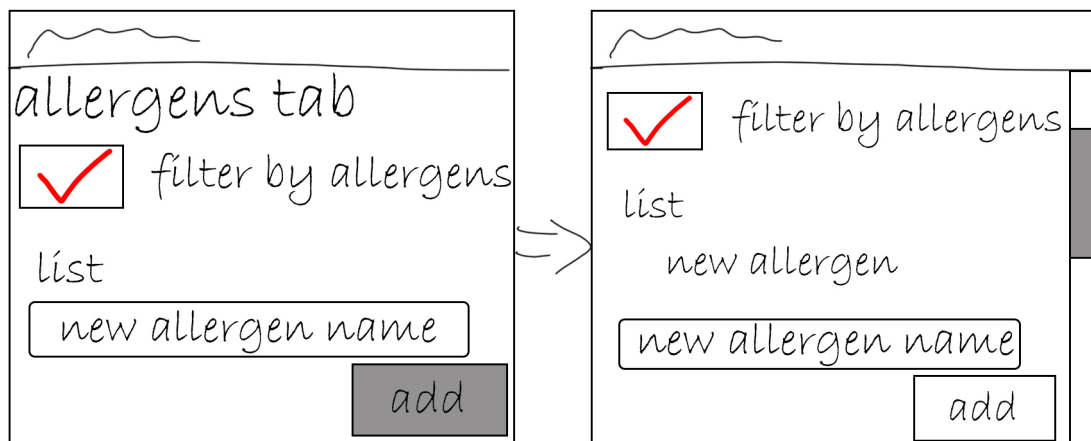### 1.2.7.3   Req. 3 - Alergen addition

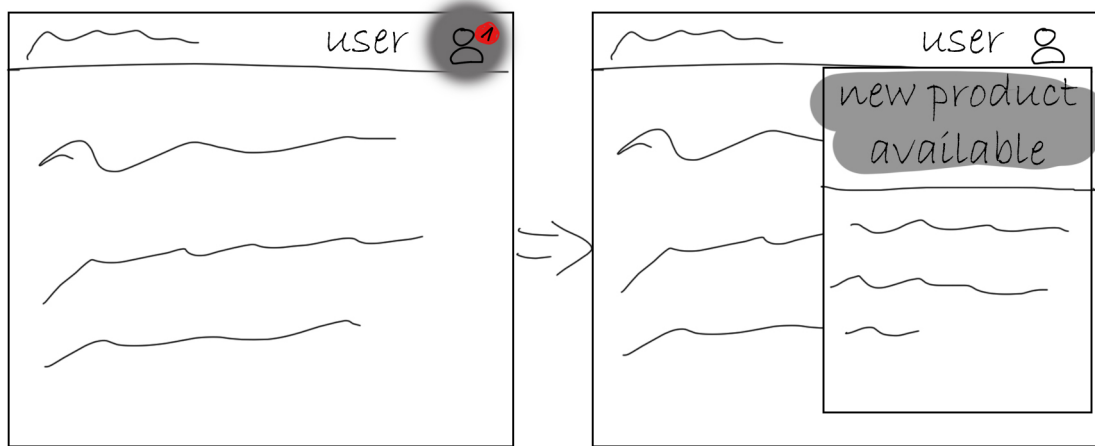Figure 8: User allergens sketch p2

Figure 9: Newly added product notification

1.2.7.4 Req. 4 - New product notification