HTL LEONDING

System Specification

Smart Shopping List

Project Name	Smart Shopping List
Project Leader	A. Walliser
Document state	In process
Version	V. 1.0

Revisions

Date	Author	Change
November 29, 2018	C. Wagner/A. Walliser	First version

Contents

1 Initial Situation and Goal

1.1 Initial Situation

Members of a typical household must go shopping for groceries at least once a week. A lot of households use grocery lists to organise that process. Problems that could occur are that the grocery list gets lost or if the list is in use nobody else can add shopping items to the list. It also could happen that multiple lists get written because of miscommunication between the members of a household.

Furthermore things get more complex when the combination of recipe books and grocery lists is considered. The items found in different recipe books have to be manually transferred to the shopping list.

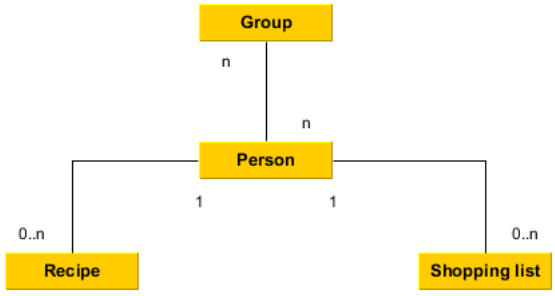
These processes could be simplified by using a grocery list app.

1.1.1 Application Domain

Most people write a shopping list before they go shopping. When one member of a household goes shopping they only buy the products they wrote down. To not forget a product they have to communicate with every member of the household and ask them which items they want. Furthermore the items are written down in the order the writer is thinking of them, but in the store they want the items to be sorted according to the departments they belong to.

1.1.2 Glossary

1.1.3 Model of the Application Domain

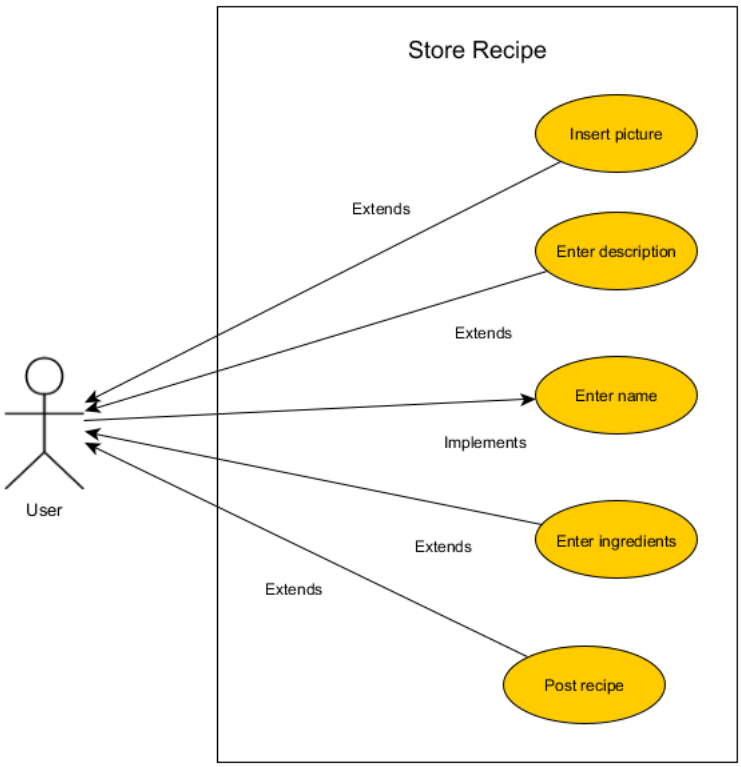


1.2 Goal Definition

The main goal of our system is to speed up and simplify the process of going shopping and storing recipes. We especially want to help people living and shopping together so they need to spend less time talking about groceries. The system also helps managing and sharing ones recipes and lists because it is way more unlikely to lose or misplace ones recipes and shopping lists. Our target group is every person that goes shopping but we especially want to cater to households with multiple members.

2 Functional Requirements

2.1 Use Case Store Recipe



2.2 Store Recipe Use Case Details

Store recipe can be used in single-user and group-mode. If a recipe is created and stored while in group-mode the recipe will automatically be added to ones personal recipe book. A picture can be added to recipe to display the looks of ones dish. When a recipe is stored a name has to be assigned. Ingredients are split into needed ingredients and optional ingredients. The user can give the recipe a description in order to write down how to cook their recipe. After a recipe is stored it can be posted to make it accessible for other users.

2.2.1 Characteristic Information

Goal	Creates a recipe that is added to the users recipelist
Involved User	The user who wants to create a recipe

2.2.2 GUI to call the use case

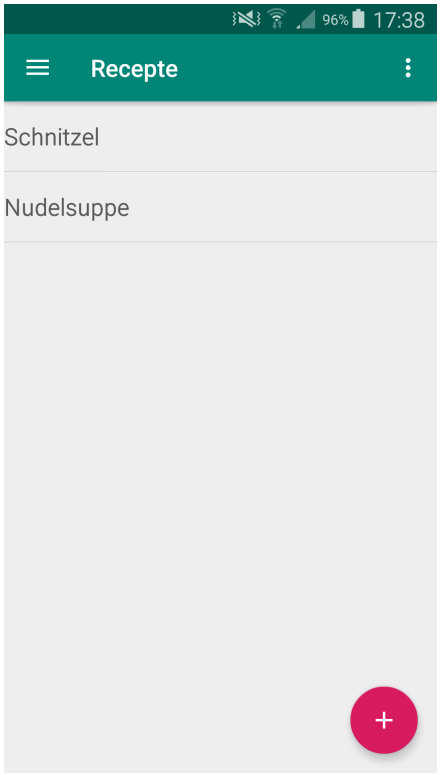


Figure 1: Recipe Tab

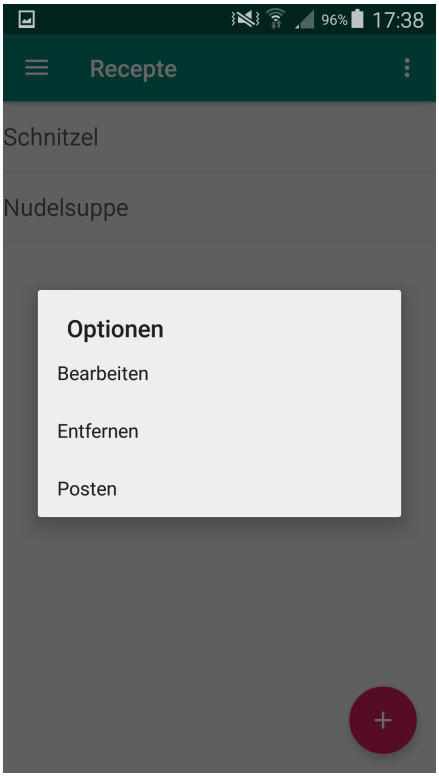


Figure 2: Long click on item

Input field	Valid inputs

2.2.3 Scenario for the standard use

Step	User	Activity

2.2.4 GUIs for the standard use

Input field	Valid inputs

2.2.5 Scenarios for non-standard uses

Step	User	Activity

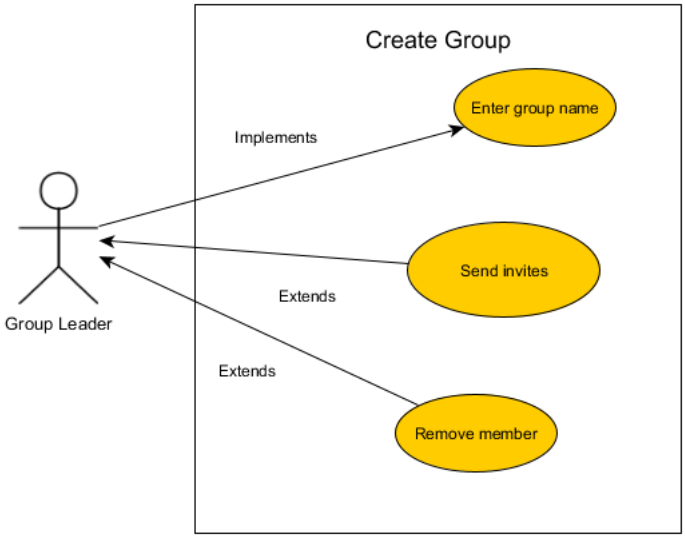
2.2.6 GUIs for the non-standard uses

Input field	Valid inputs

2.2.7 Workflow

2.3 Open points

2.4 Use Case Create Group



2.5 Create Group Use Case Details

When a group is created a name has to be chosen. Once the group is created other users can be invited and therefore also remove from the group but only by the group leader.

2.5.1 Characteristic Information

Goal	Create a group with the group leaders items and categories
Involved User	Leader of the group

2.5.2 GUI to call the use case

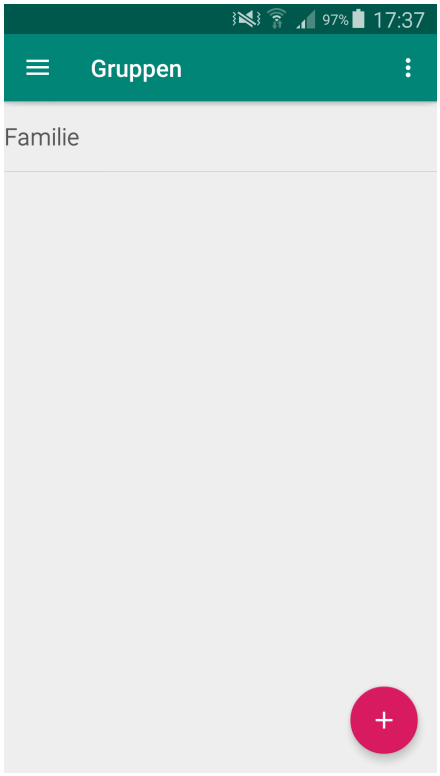


Figure 3: Group Tab

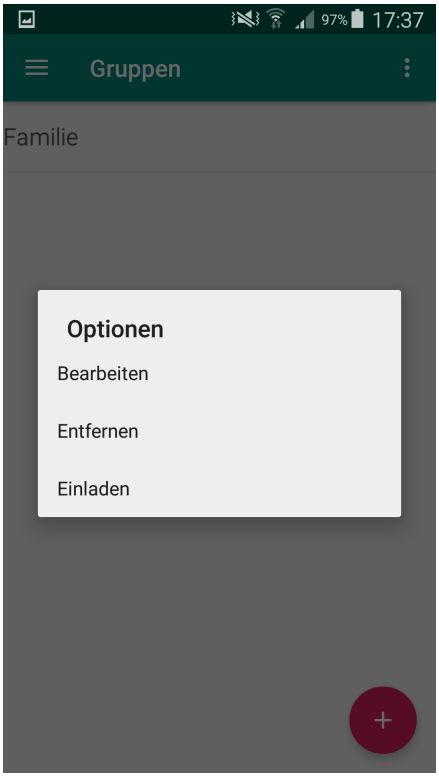


Figure 4: Long click on item

Input field	Valid inputs

2.5.3 Scenario for the standard use

Step	User	Activity

2.5.4 GUIs for the standard use

Input field	Valid inputs

2.5.5 Scenarios for non-standard uses

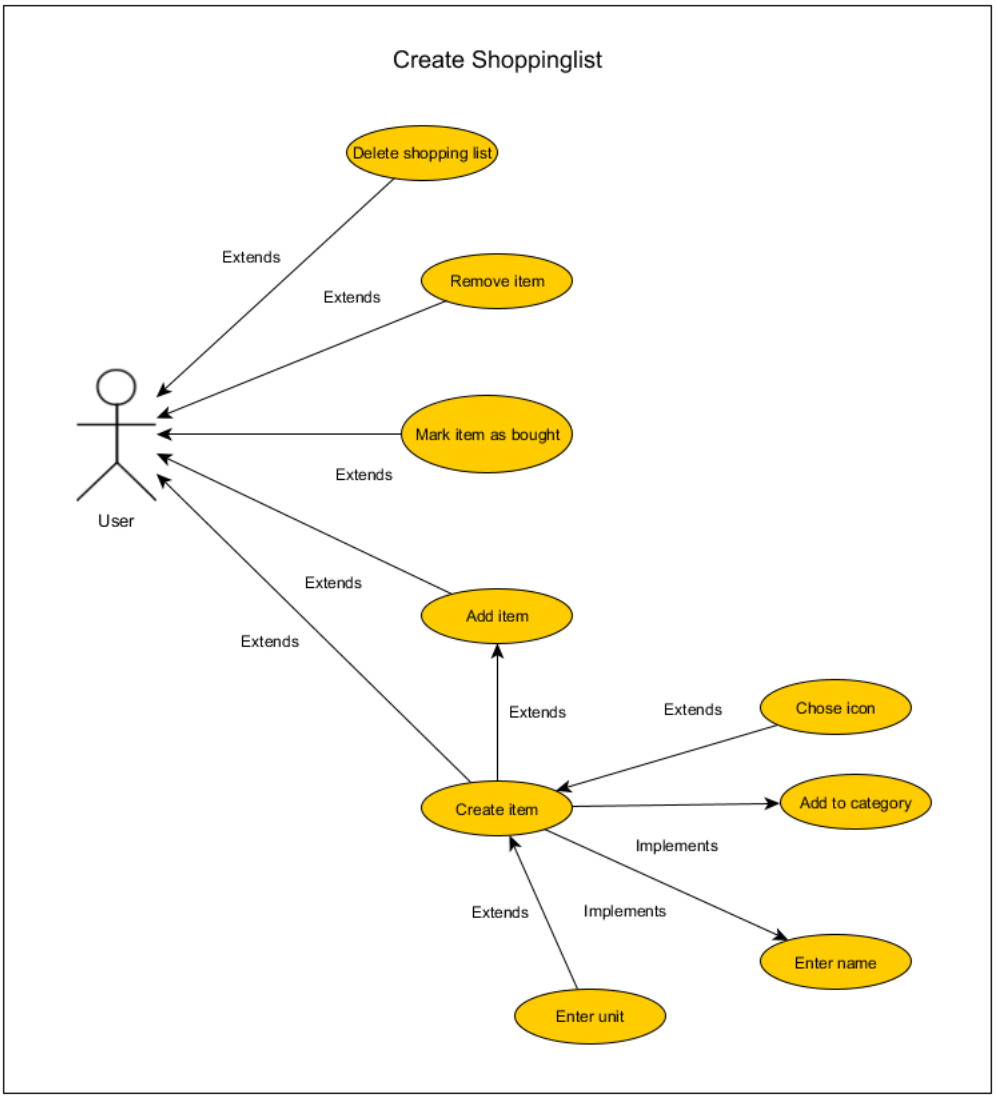
Step	User	Activity

2.5.6 GUIs for the non-standard uses

Input field	Valid inputs

2.5.7 Workflow

2.6 Use Case Create Shopping list



2.7 Create Shopping list Use Case Details

When creating a shopping list there are no necessary action. After the creation of the shopping list items can be added from the users personal items. When the required item is not found in the users item list it can created on the fly. In the shopping list the items are sorted by category which can be altered by the user. The items on the shopping list can be marked as bought. All bought items can be removed from the shopping list all at once. Items can be removed. Items can also be created without a shopping list. When an item is created a name and its category has to be chosen. The user is able to choose an icon and a unit for the item.

2.7.1 Characteristic Information

Goal	Create an empty shopping list
Involved User	User who wants to create a shopping list

2.7.2 GUI to call the use case

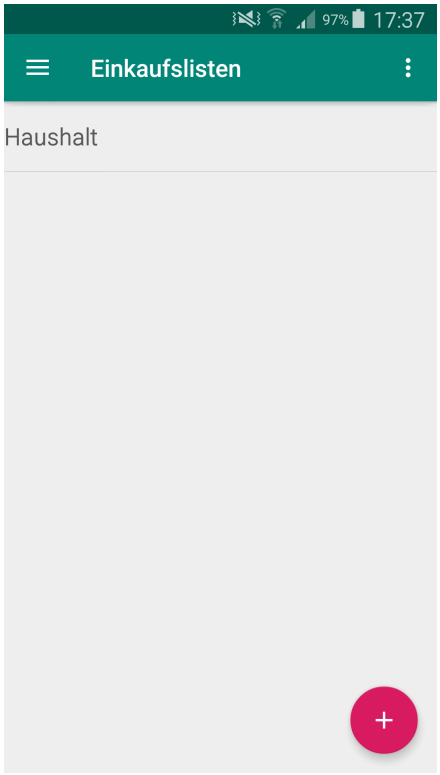


Figure 5: Shoppinglist Tab

Figure 6: Long click on item

Input field	Valid inputs

2.7.3 Scenario for the standard use

Step	User	Activity

2.7.4 GUIs for the standard use

Input field	Valid inputs

2.7.5 Scenarios for non-standard uses

Step	User	Activity

2.7.6 GUIs for the non-standard uses

Input field	Valid inputs

2.7.7 Workflow

3 Non-functional Requirements

ID	NFR001
Name	Data volume
Type	EFFIC
Description	The data usage should be under 75 mb per month given that not a lot of pictures are up/downloaded. Assuming 8 Mbit/s download 2 Mbit/s upload.

ID	NFR002
Name	Start time
Type	EFFIC
Description	The synchronisation of the user configuration and the database should not take longer than 5 seconds. Assuming 8 Mbit/s download 2 Mbit/s upload.

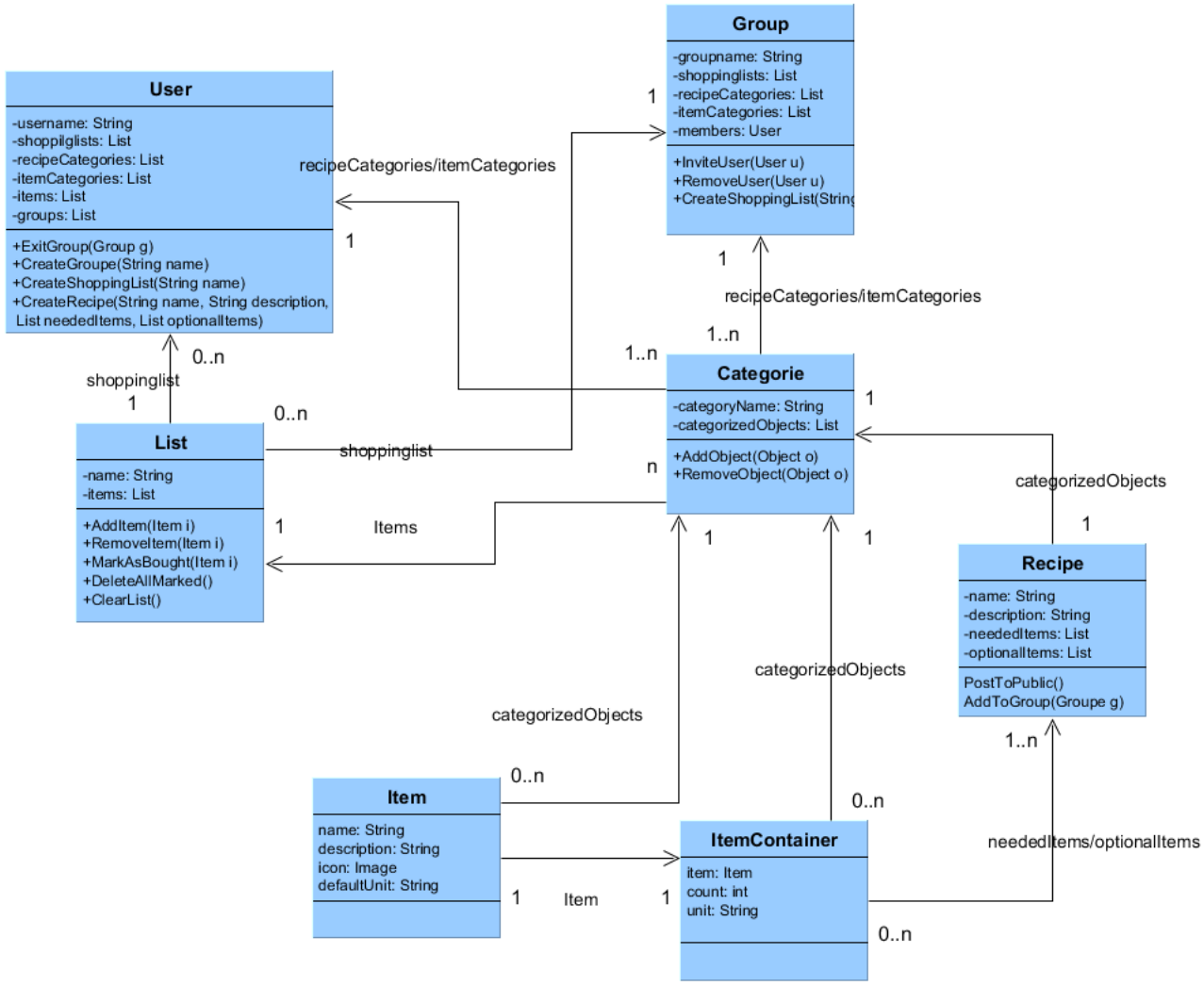
ID	NFR003
Name	Group
Type	EFFIC
Description	Changes to the group should not take longer than 1 second to upload. Assuming 8 Mbit/s download 2 Mbit/s upload.

ID	NFR003
Name	Accessibility
Type	SEC
Description	The only data we need to protect from unauthorized access are the users password and e-mail address.

4 Quantity Structure

Every user has a nickname, password and e-mail. All configuration from every user concerning items, shopping lists and recipes will be saved in order to be independent of devices. Every recipe that is created inside of a group will be added to ones recipe book. A group has its own items, shopping lists and recipes it also has every member. A new user with the default configuration will use about 60 records. Considering the amount of data we chose to save the user data in a database.

5 System Architecture and Interfaces



6 Acceptance Criteria

6.1 AC001

Test step	Expected behaviour
Store a recipe without entering a name	Recipe will not be stored and the user will be asked for a name
Add a picture to the recipe	Picture is visible in the recipe book
Add picture to recipe which is stored in a group	Picture is visible to all group members and recipe is in the private recipe book
Storing a recipe that has been posted	Recipe will be found in the recipe book and all needed items will be created

6.2 AC002

Test step	Expected behaviour
Create a group without entering a name	Group will not be created and the user will be asked for a name
Send invite to other user	Other user receives the invite and can join the group
Send invite to non-existing user	No invite will be sent and the user is told that the user does not exist
User other than the group leader invites a user	User should be prevented from sending the invite
Remove user of a group	User can no longer access group information and the removed user will be notified
Remove user the does not exist	Group leader will be prevented
User other than the group leader removes a user	The user will be prevented
Group leader leaves the group	The group leader must assign the next group leader
User leaves group	User has no longer access to group information

6.3 AC003

Test step	Expected behaviour
Creating an shopping list without entering a name	and the user will be asked for a name shopping list will not be created
Remove item from shopping list	Item is not in list any more
Mark item as bought	Item will be marked and moved to the bottom of the list
Add existing item to shopping list	Item will be added to the list in the right category
Add non-existing item to shopping list	User will be asked if they want to create the item
Delete shopping list	Shopping list will be deleted
Remove bought items	Every item in the shopping list that is marked as bought will be removed
Creating an item without entering a name	Item will not be created and the user will be asked for a name