TECHNISCHE UNIVERSITÄT DRESDEN

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

Application Development for Mobile and Ubiquitous Computing

Seminar Task

Final Presentation

GroupNo.10
Team:BeMyStore

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BeMyStore

Basic Concept

- Similar to other Share economy project like:
  - BlaBlaCar
  - AirBnb
- You can share your leftover goods
  - You can sell, buy leftover groceries
  - In the current version
    - Beer, soda,snacks
- An example:
  - you have leftover from a party the night before
  - Other people search desperately for beer in the middle of the night
  - We connect both parties

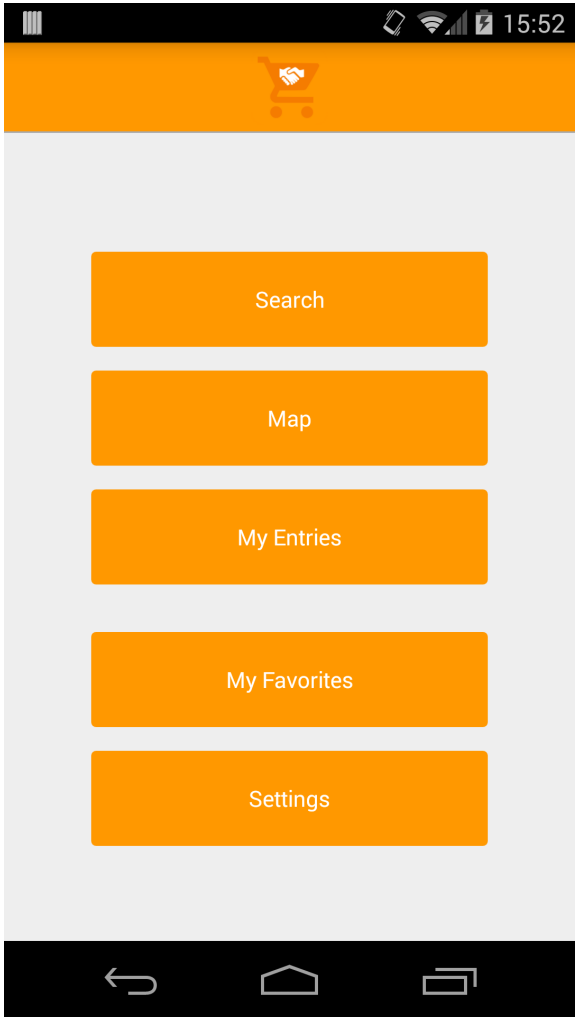
Concrete Concept - Seller

- the Seller can open what we call “Entries”
- he can specify the Category, a Productname and his Contactdetails
- his current coordinates received from the GPS modul will be used to locate his shop
- he can edit his product or add new ones
- Able to activate/deactivate own Entries

Concrete Concept - Buyer

- The Buyer can search for Entries other users opened
  - He can search by
    - Category
    - Productname
  - Only currently activated Entries will be shown
- He can also search his surroundings using a map
  - Can select shown Entries for details
- He will just get Entries which are in his area
  - Able to set a radius in which he would like to see all Entries

BeMyStore – The App



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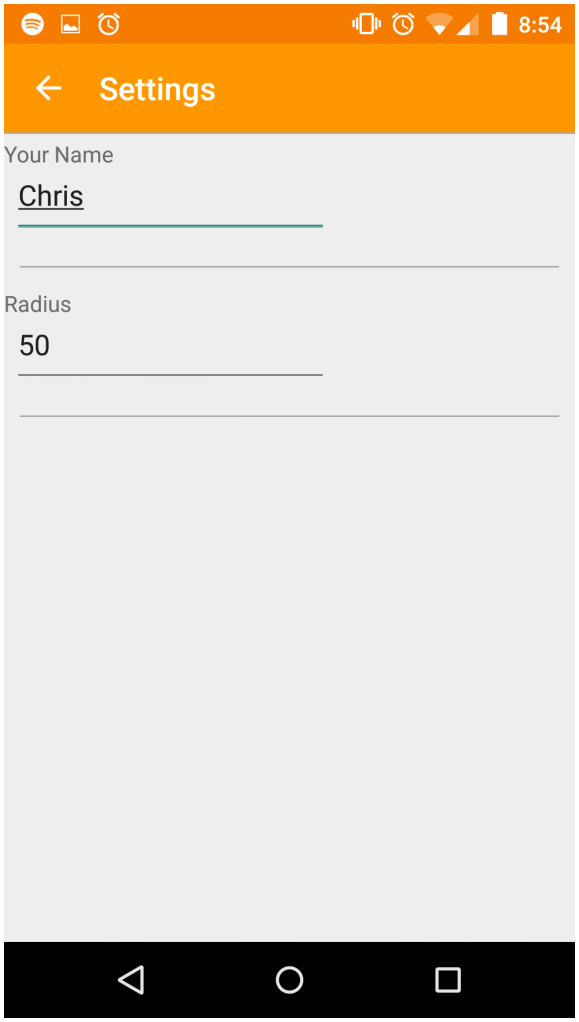

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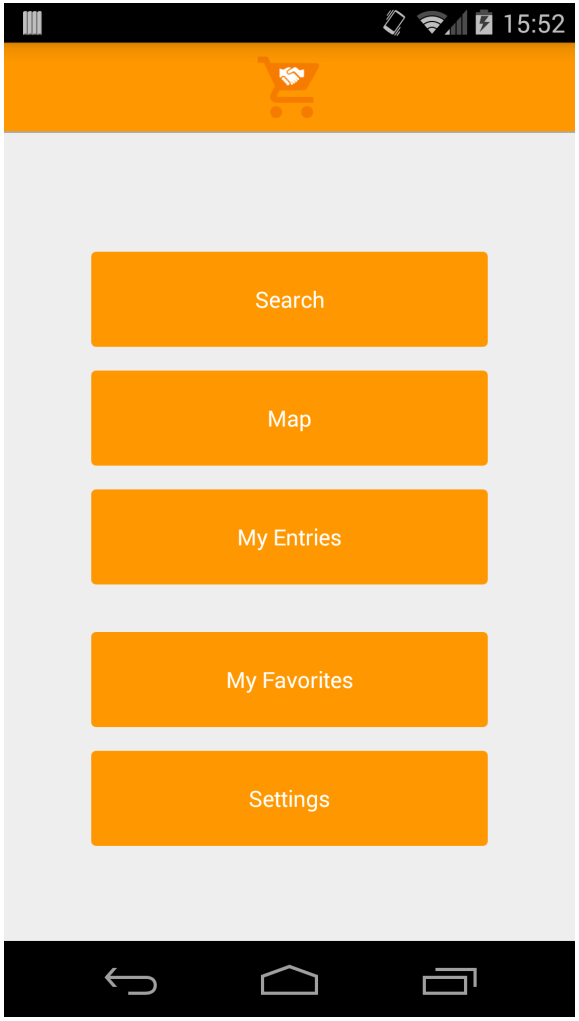

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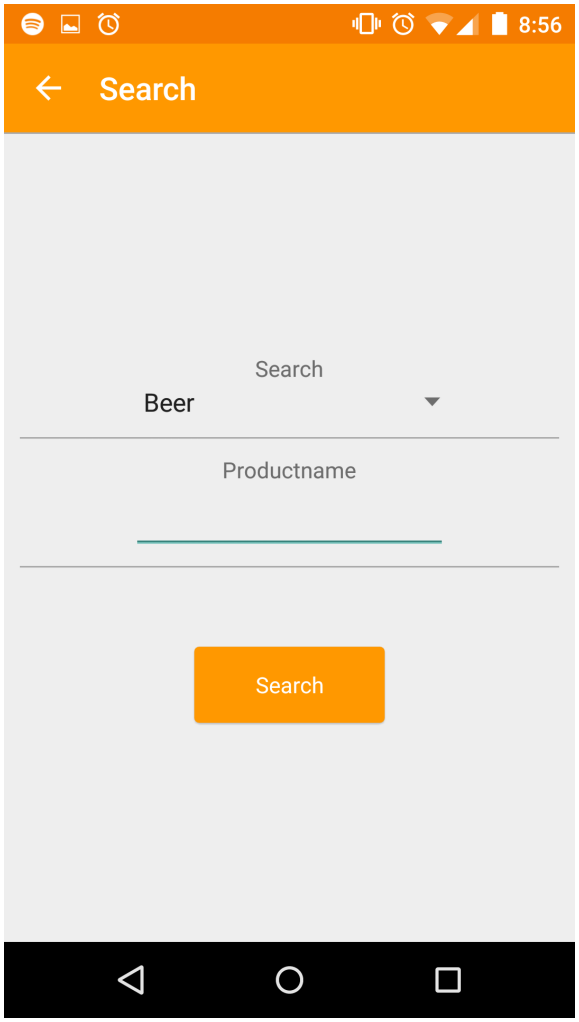

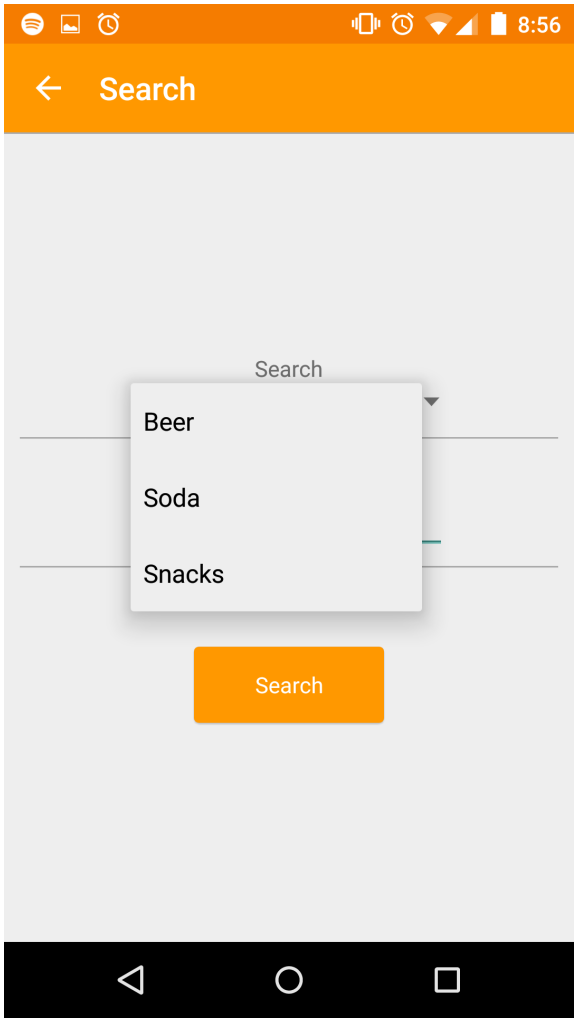

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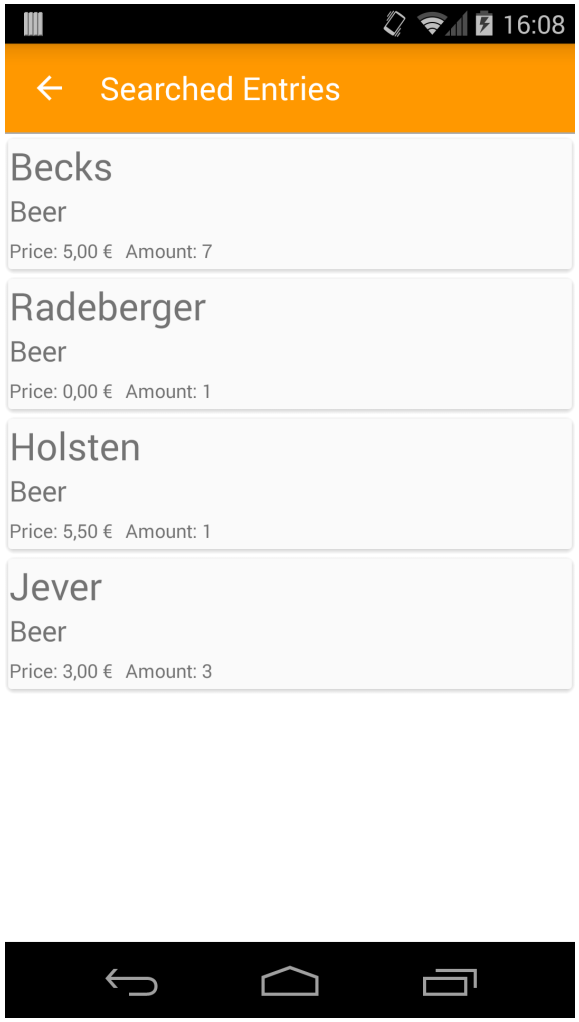

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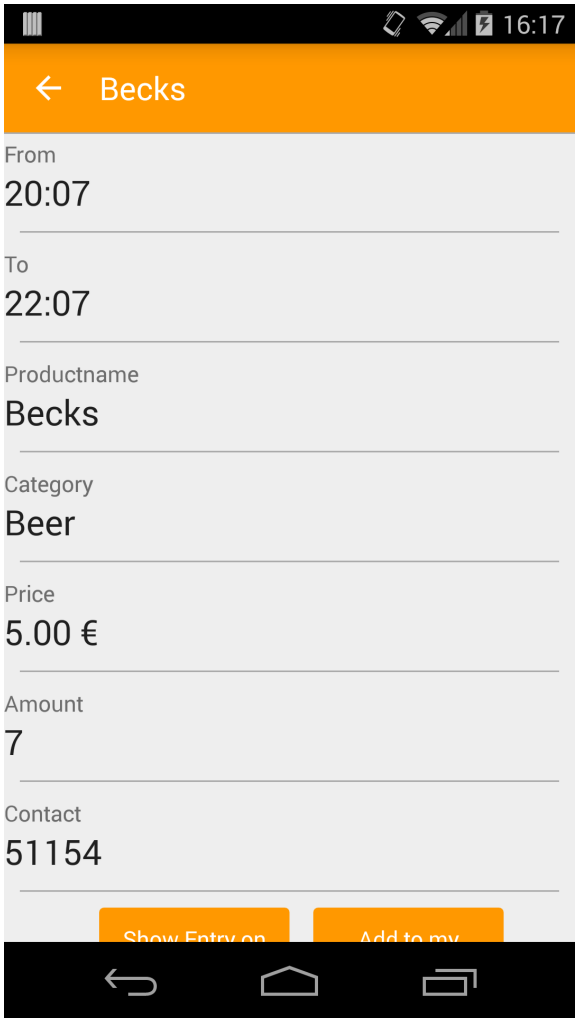

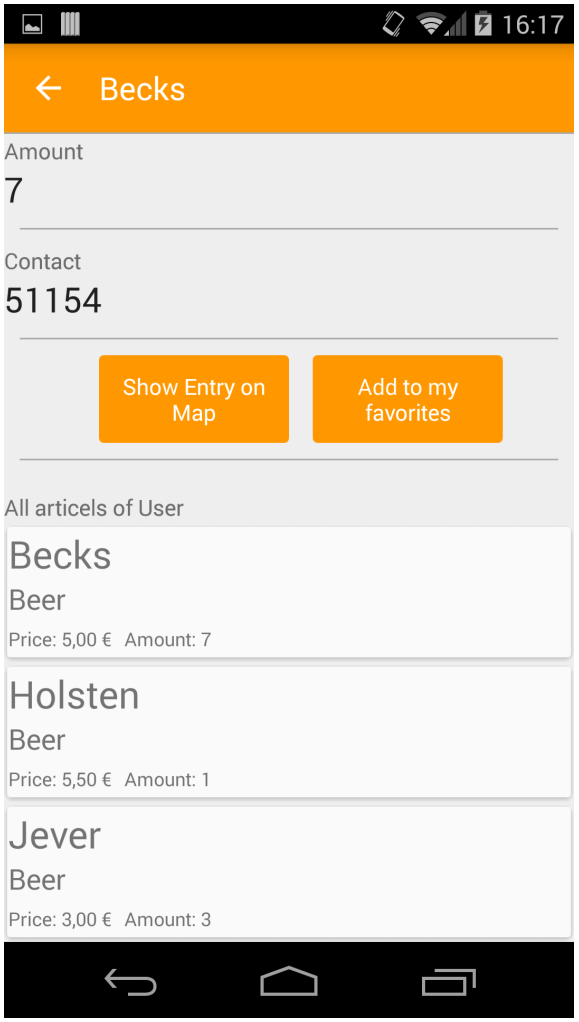

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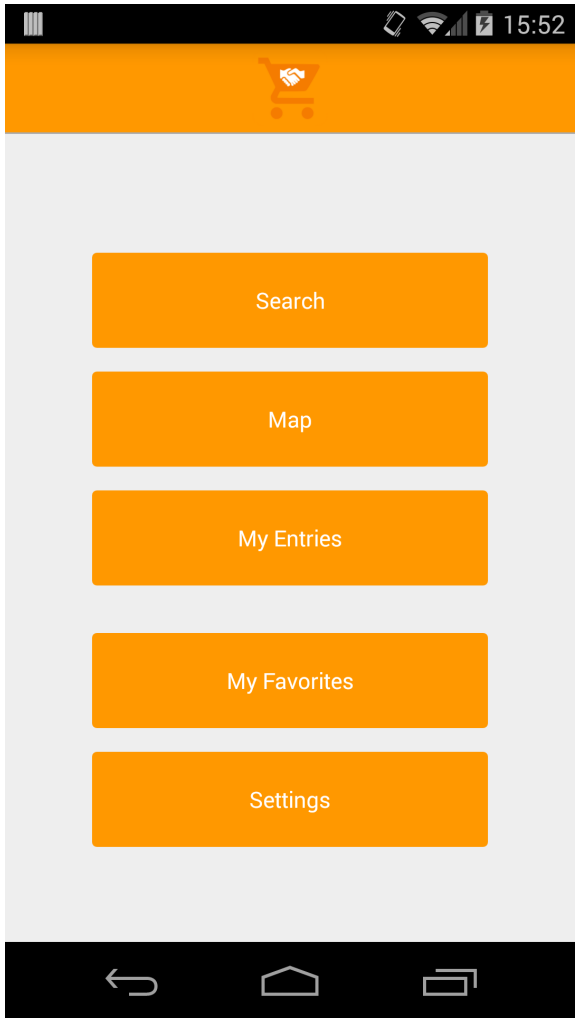

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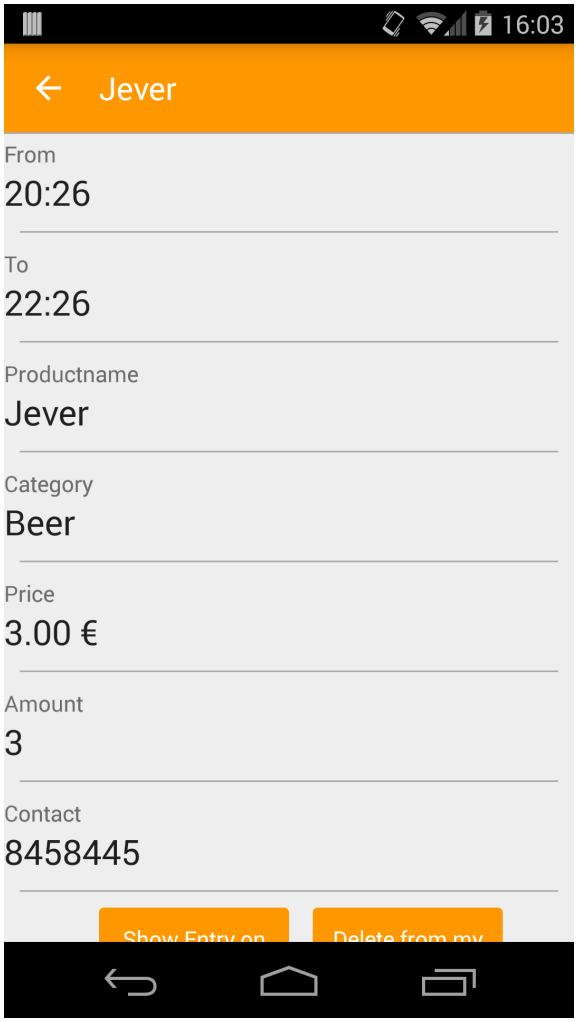

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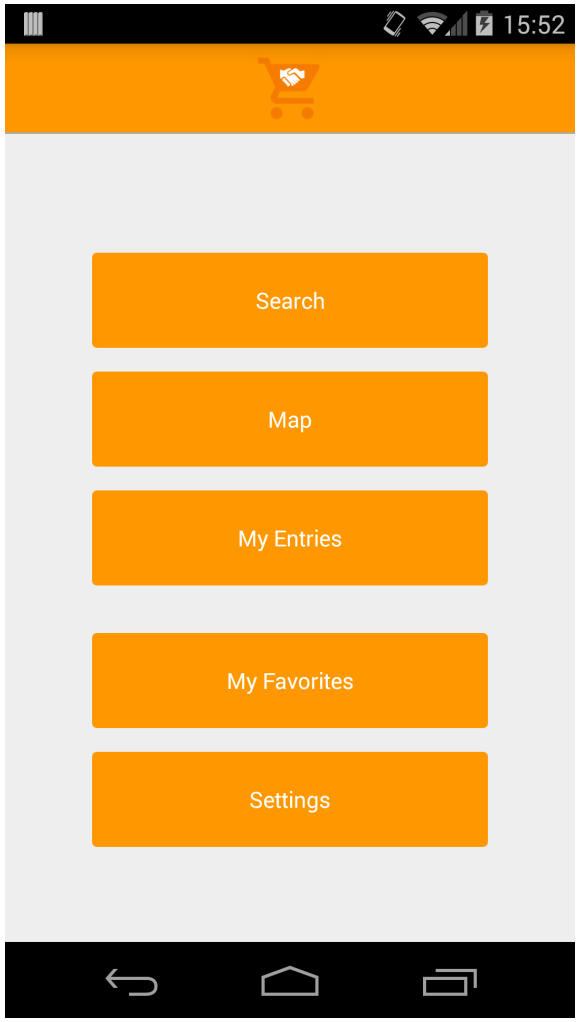

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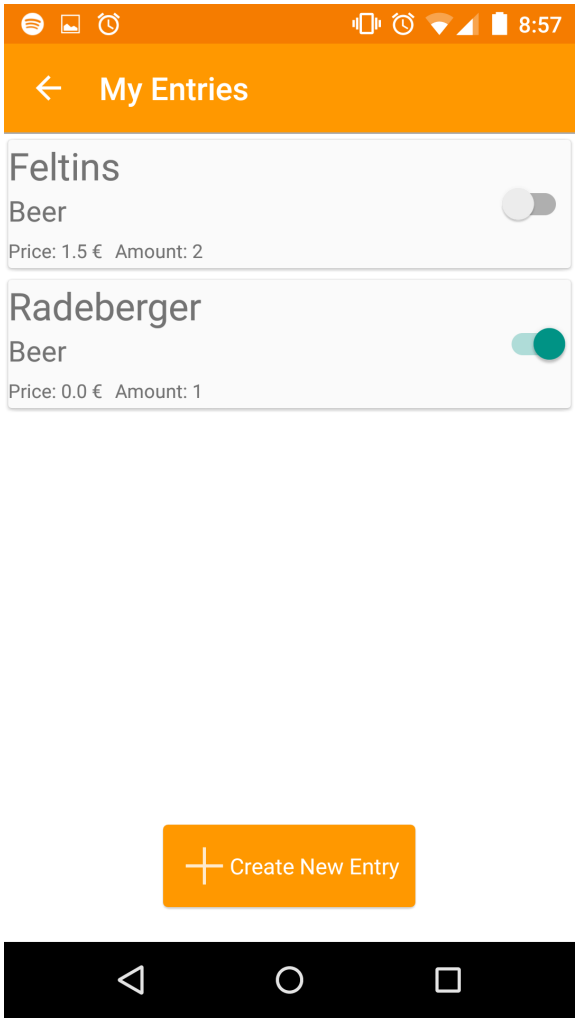

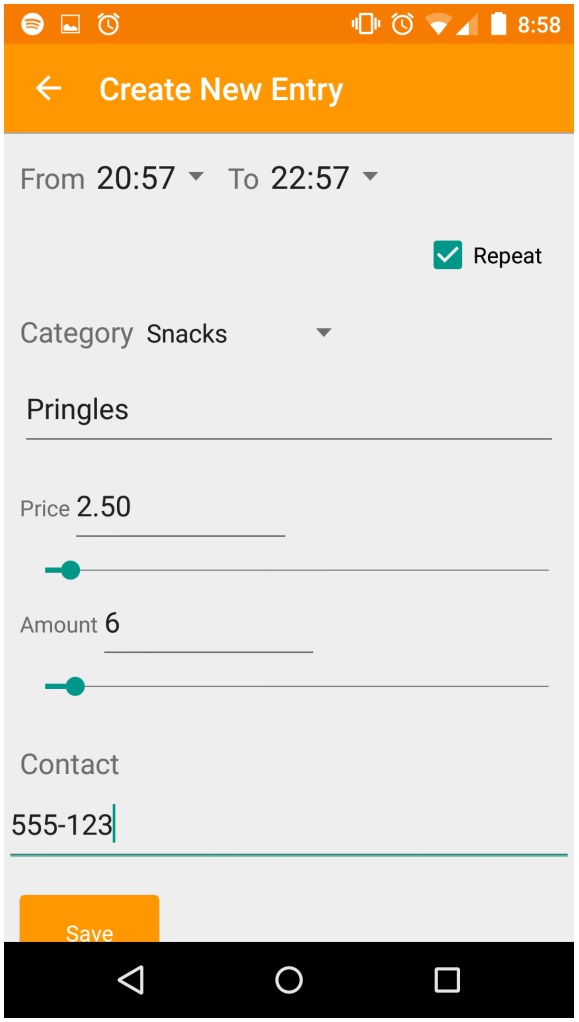

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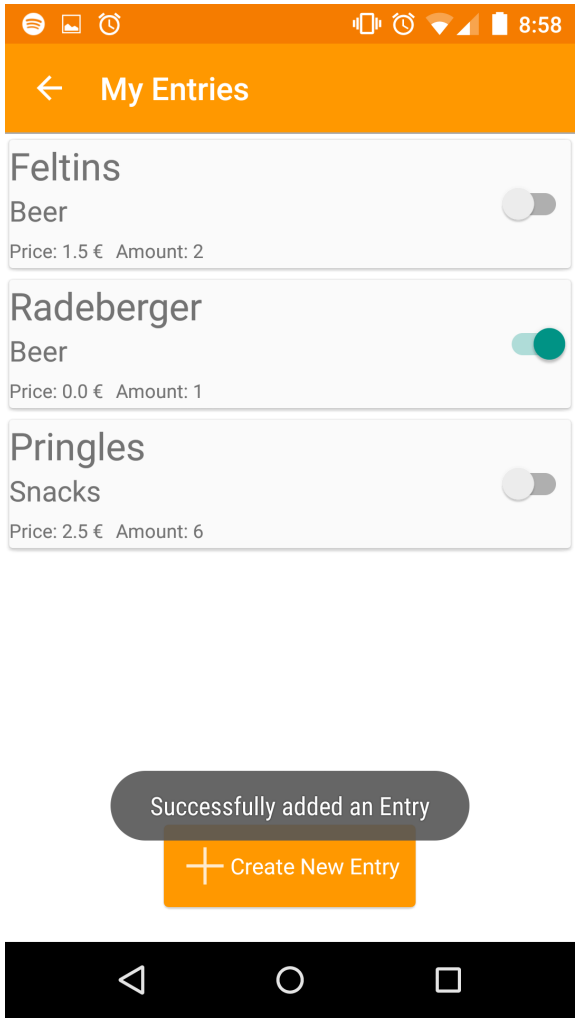

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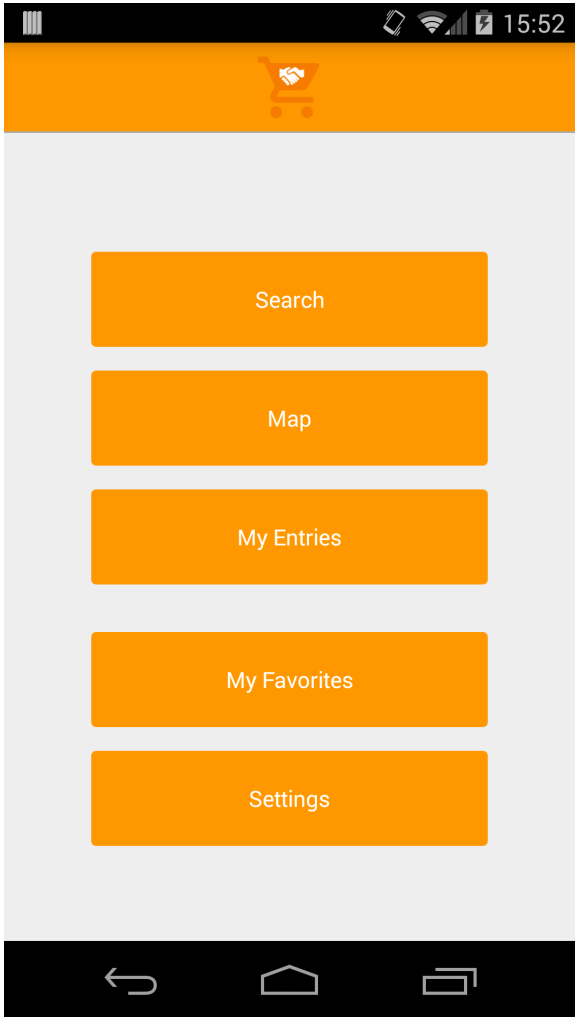

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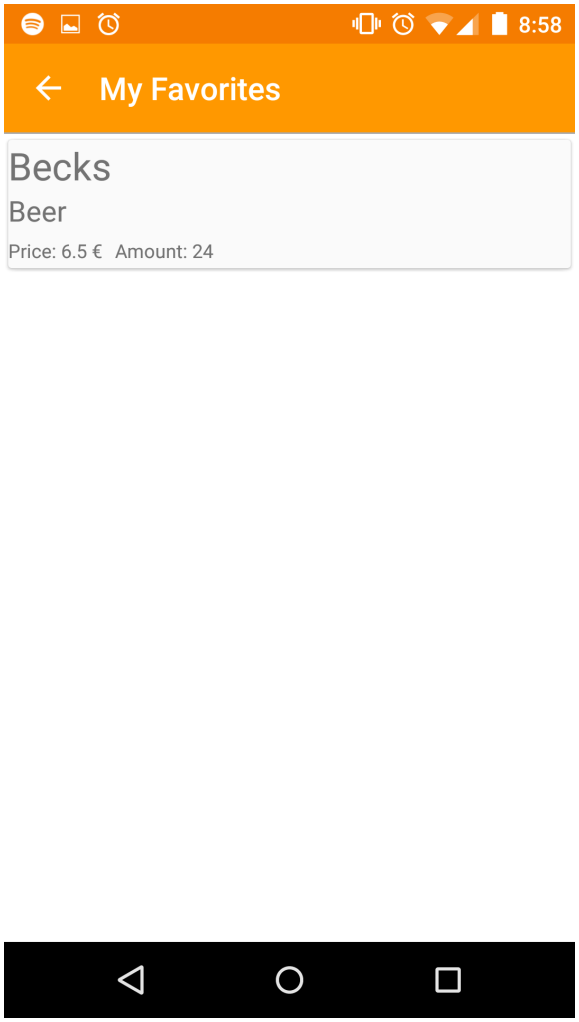

Context Awareness

- Features
  - The App uses the current Position of the user
    - It calculates all shops in the users area
  - The user can decide to use Googles GPS service
    - Will save the last known location
      - Helps if user enters a building for example
  - It uses a radius set by the user to determinate the search radius the user would like to use
- Limits of this implementation
  - App mostly useless when there is no GPS data available
    - Not even Googles GPS service

Challenges - Offline Challenge

- Features
  - If the app is unable to pull latest results it uses the last pulled results
    - Until app will be closed or internet connection is available
  - You can specify so called “favorites”
    - They will be saved to your smartphone
    - Available even if you lose your connection
- Limits of this implementation
  - The Data may be old and the shop is not available anymore
  - Favorites can be very old, probably even weeks or month

Challenges - Connectivity Challenge

- Features
  - amount of data send and handled is reduced to a minimum
    - Saves data usage
    - Service is available even on very poor connections
    - battery is saved because calculations are done server sided
- Limits of this implementation
  - smartphone has to connect very often to get current data

Pitfalls and experience

- It is pretty hard to ensure consistency on server and smartphone
  - Sometimes twice the work
- Synchronization is pretty hard
  - difficult if connection can not be ensured
- Highly relying on GPS can be dangerous because a lot of buildings block GPS