

# Application Development for Mobile and Ubiquitous Computing

## Splittify

## First Presentation

# Agenda

1. Application Scenario
2. Use Cases
3. Mock ups
4. Challenges
5. Technologies
6. Work Plan

# 1. Application Scenario

## Motivation for **Splittify**

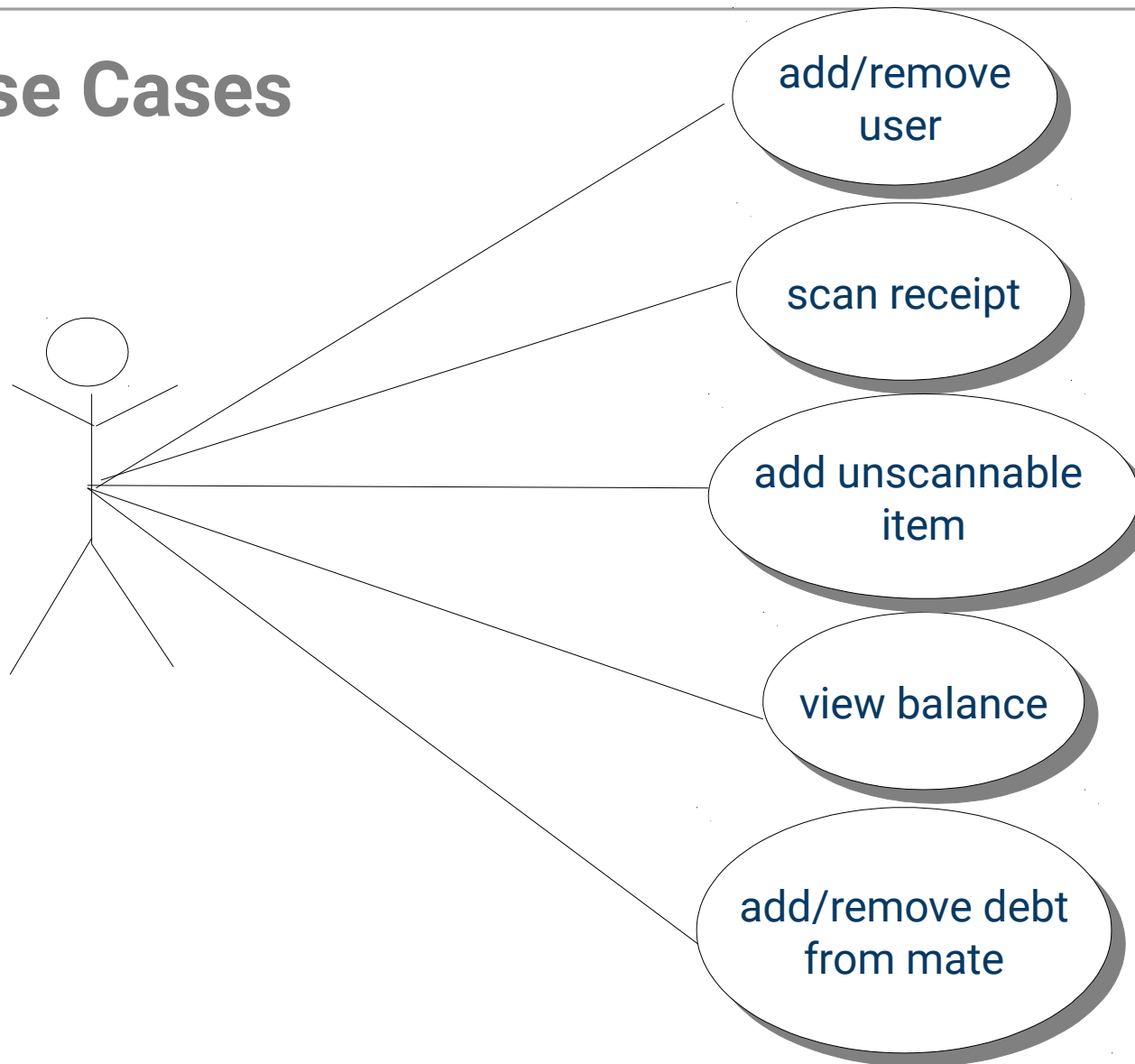
- ☞ Organizing monetary balance in shared flats is tedious  
(effort/tediousness increases dramatically when number of room mates rises above 2)
- ☞ Often hard to keep track of expenses, both on paper and in mind
- ☞ Current Apps let you type in different spendings and let you categorize them → still (or especially) inconvenient for groceries

# 1. Application Scenario

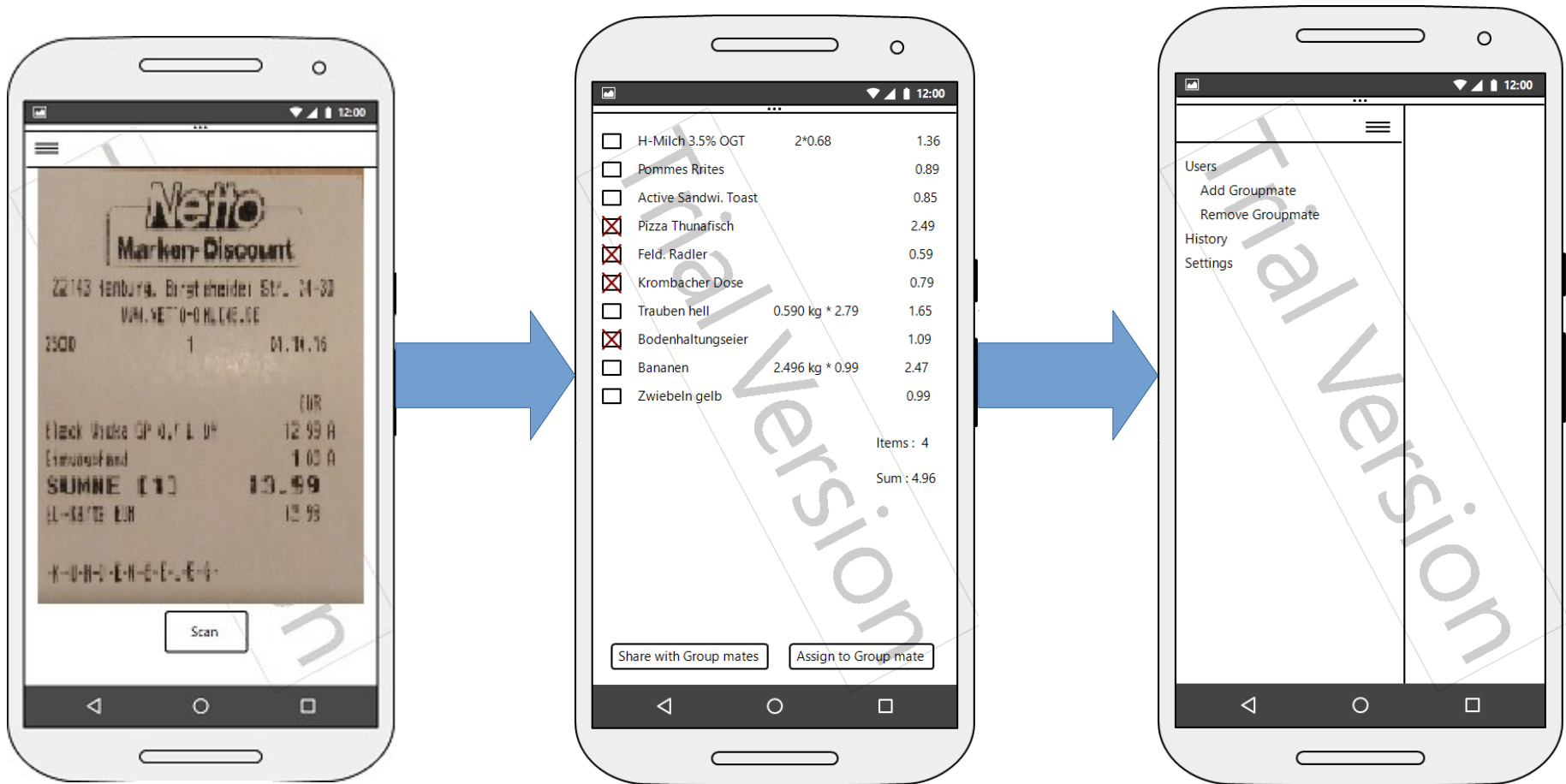
## Solution

- App (**Splittify**) that let's you keep track of everything automatically
  - Register the amount of flat mates
  - Scan receipts from e.g. groceries
  - Assign items to mates or groups of mates
  - Let the App calculate your balance
  - Never let temporals bug you again 😊

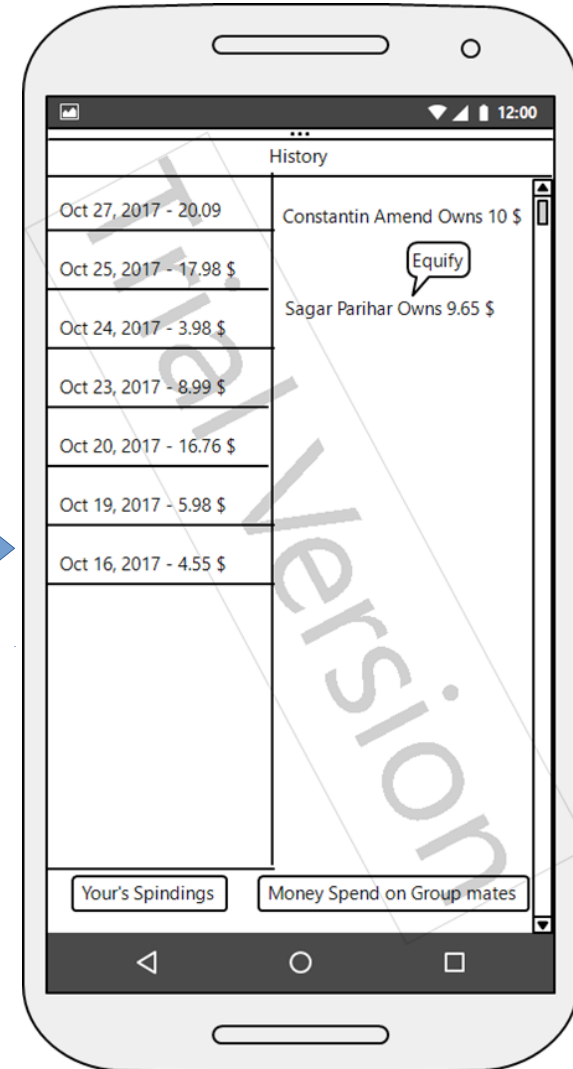
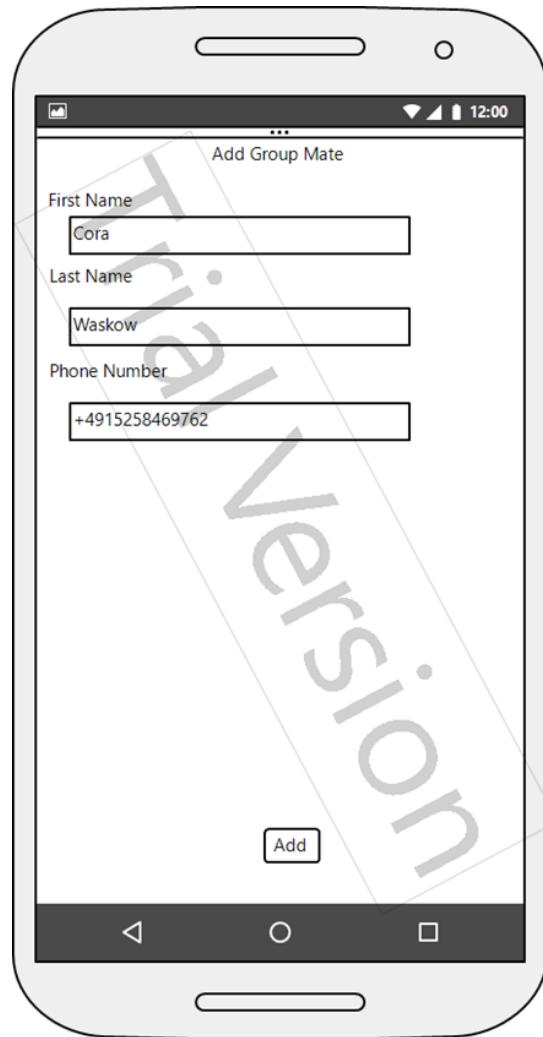
## 2. Use Cases



# 3. Mockups



### 3. Mockups



## 4. Challenges

### Image/Text Recognition

- Get reliable results to prevent annoyance
- Possibly Barcode scanning as last resort?

### Storing Data

- Locally → how to keep data in sync? NFC/Bluetooth?
- In Cloud → how to set everything up? Connectivity Issues?

### Connectivity

- Provide functionality during challenged connection times

### Form factor & Usability

- Different Screen sizes + Visualization



## 5. Technologies

- ✓ Android SDK
- ✓ Programming Language: Java (maybe Kotlin)
- ✓ Computer Vision API for Text Recognition
- ✓ Optical Character Recognition
- ✓ If cloud-based: SQLite Database
- ✓ Bluetooth/NFC

## 6. Work Plan

Date	Event
03.11.17	<b>First Presentation</b>
10.11.17	Get going (dev environment, techniques/apis etc.)
17.11.17	UI Design
24.11.17	System/architecture design
01.12.17	Core functionality implementation + Tests
08.12.17	Core functionality implementation + Tests
15.12.17	<b>Adaptation Concept Presentation</b>
22.12.17	Probably nothing because of holidays
29.12.17	Tests
05.01.18	Finalization
12.01.18	Bugfixing
19.01.18	Bugfixing + Documentation/Review
26.01.18	<b>Final Presentation</b>

**Thanks for your attention**

**Any questions?**