

# Application Development for Mobile and Ubiquitous Computing

**Dr.-Ing. Thomas Springer**

FlatSharing

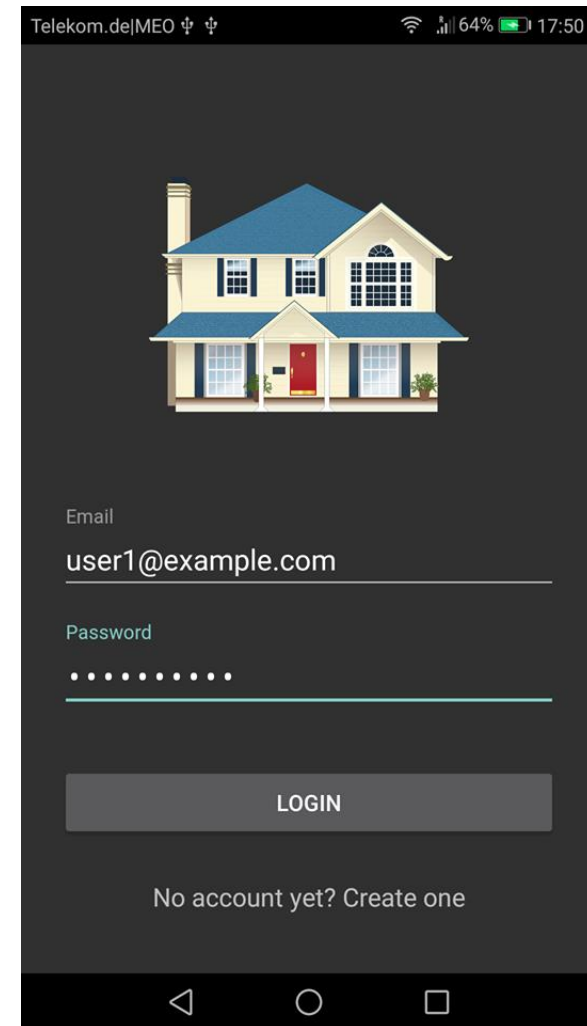
Final Presentation

Group 7

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Daniel Creanga  
João Calado

**Dresden, 26 January 2018**

- You are new in town and need a place to stay?  
or
- You have a flat or a bedroom that you would like to rent?
- We have a solution for you – it's FlatSharing!
- Just create an account and find your perfect place to stay, or place an add.



Telekom.de|MEO 59% 18:43

## Signup

Name

Email

Password

Phone Number

Birth Date

Male  Female  Other

Register as a Student?

CREATE ACCOUNT

00:54 81%

## FlatSharing

- Home
- Watchlist
- Profile
- Logout

Fritz-Löffler-Strasse 170

Studentenclub Novitatis

Kellerclub GAG 18 e.V.

00:55 81%

## FlatSharing

Daniel Creanga

Email  
user1@example.com

Phone Number  
96969696

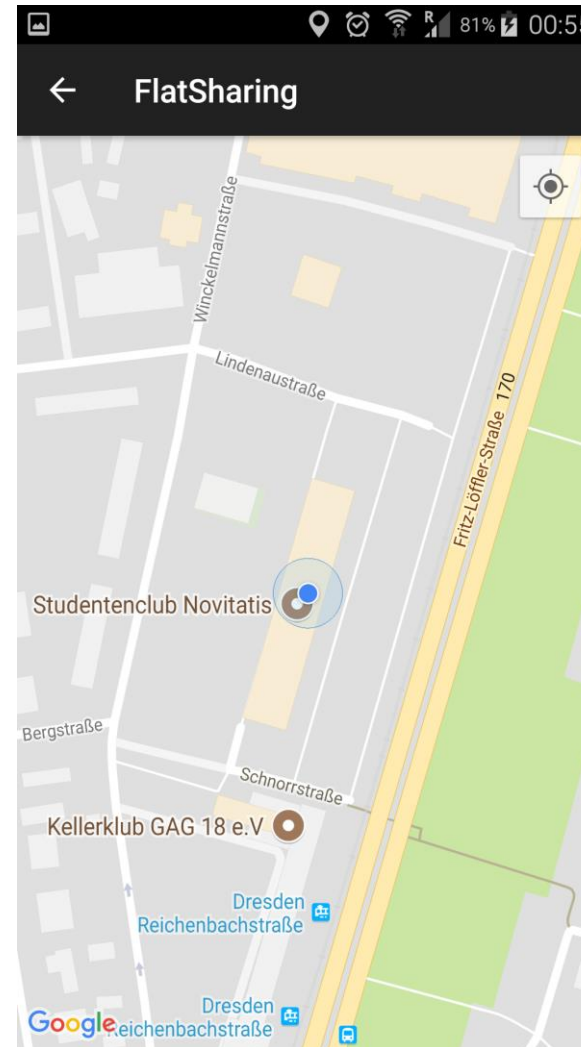
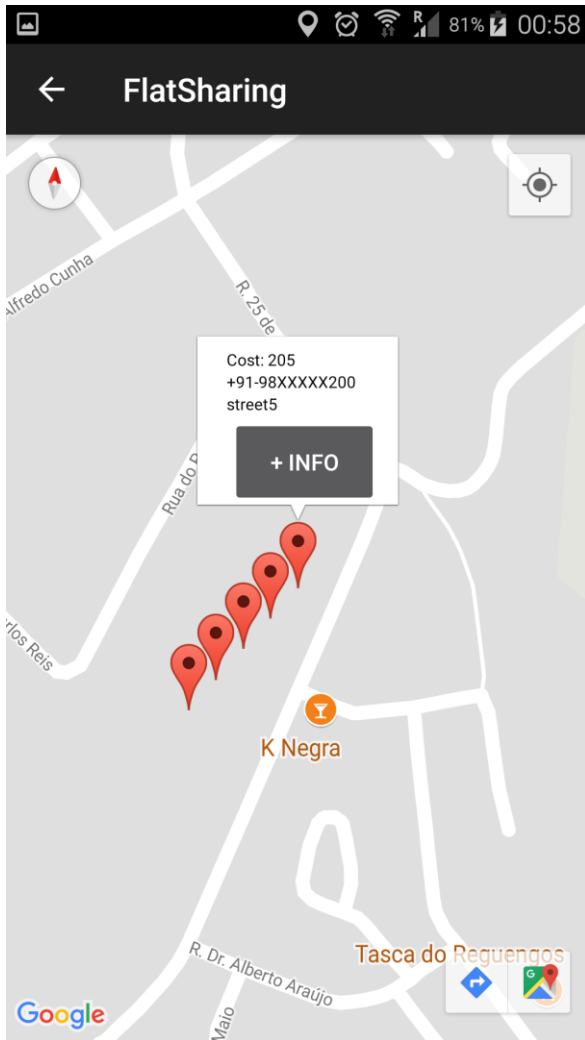
Birth Date  
Jan 25, 2018 8:21:25 PM

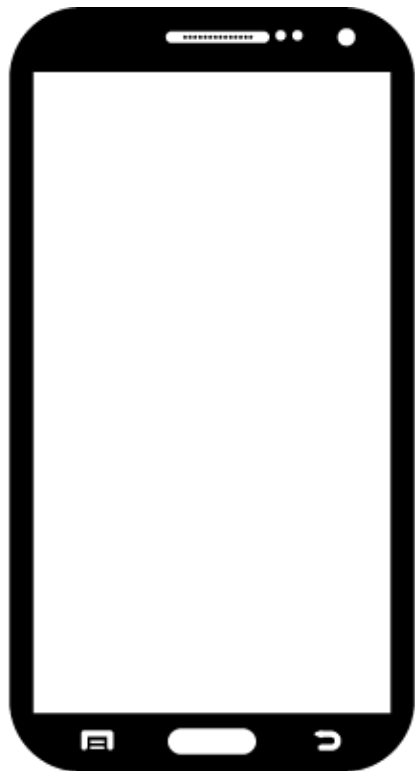
Faculty

Nationality

UPDATE PROFILE

DELETE ACCOUNT





Client

Client requests

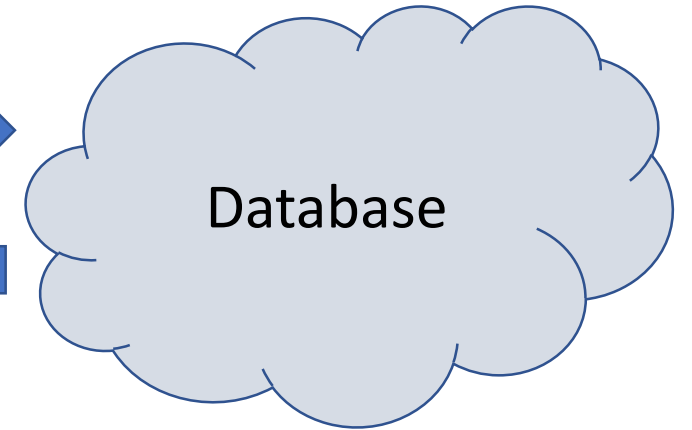
Server replies



Server

- Issue query
- Store, modify, delete data

Data retrieval

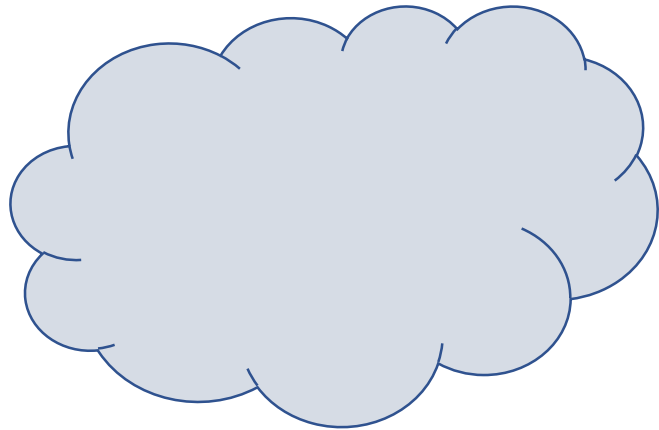


Database



- Android native client
- Developed using Android studio
- Application tested in Postman





- Cloud database – Google Cloud Platform
- Request/Reply mechanisms using JSON and REST





- Server hosted in Google app engine
- Developed with Java using eclipse IDE
- Dependency handling by Apache maven





## Energy Challenge

- Reduce battery consumption of the GPS.

Context: Detect user location with GPS from time to time.

Adaptation: Use GPS tracking activity only when a user starts moving or searches for ads.

## Offline Challenge

- Provide some available content to use in offline mode

Context: Detect if there is a network connection available.

Adaptation: Cachable content of the latest, following and own advertisements data on the client side, assuring data integrity for recovery mode.

## Usability Challenge

- Provide a good and intuitive UI to users with all types of devices (e.g. Tablet, Smartphone) and minimize user input interaction.

## Context

- Detect screen size and device type
- Detect user location with GPS

## Adaptation

- TODO: App pages showing more/less ad information for different devices;
- Center map on user's position;

## For the future...

- User experience – improving user interface

## Lessons learned

- Using Android studio
- Adapting UI to landscape mode
- Working with RESTful services

Thank you for your attention!