

Application Development for Mobile and
Ubiquitous Computing

SEMINAR TASK

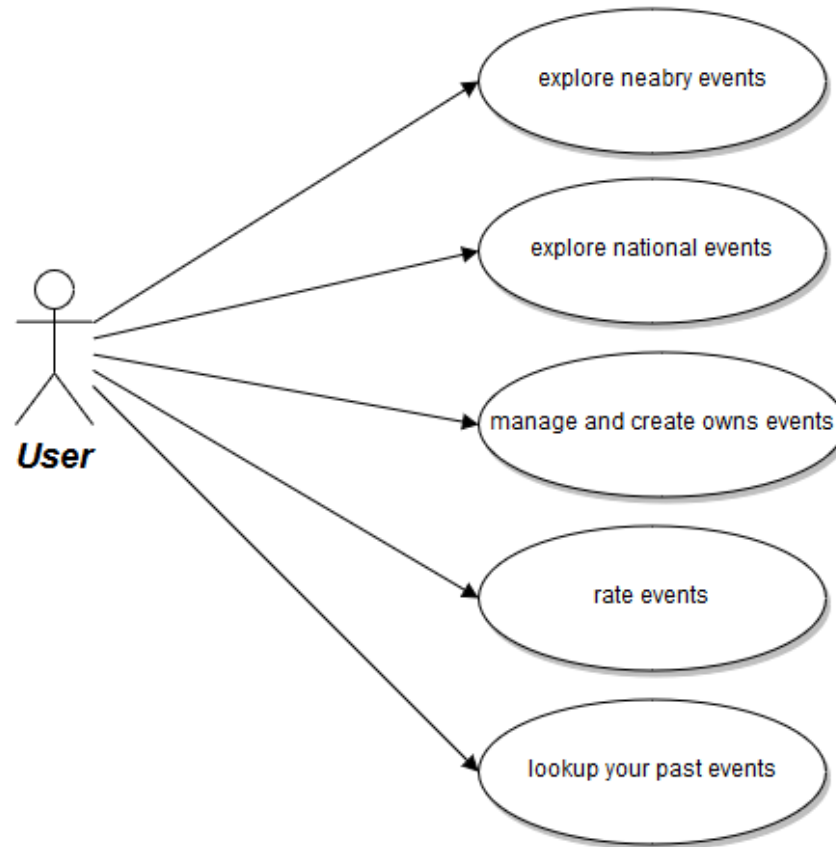
FINAL PRESENTATION

Maximilian Kindt and Simon Rother
Dresden, 2. Februar 2017

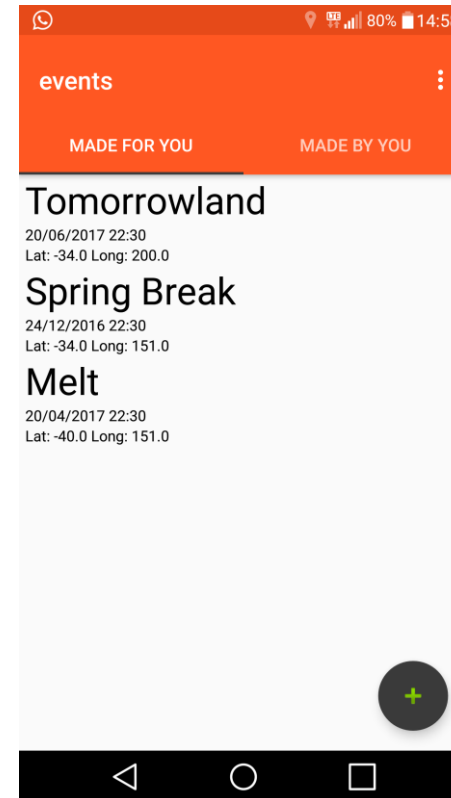
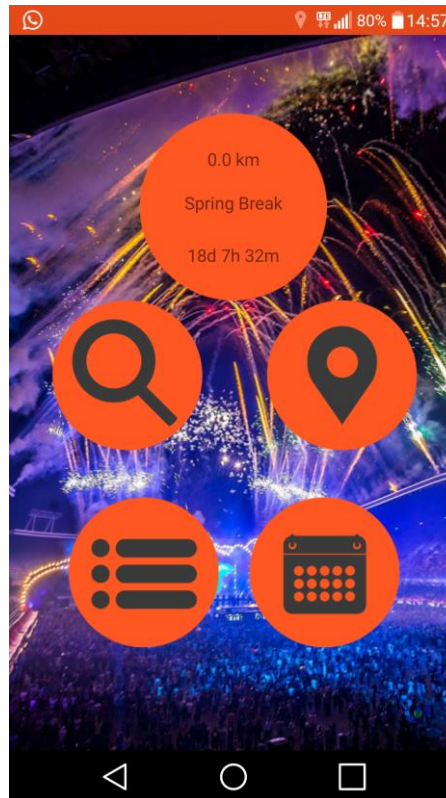


EventManagr

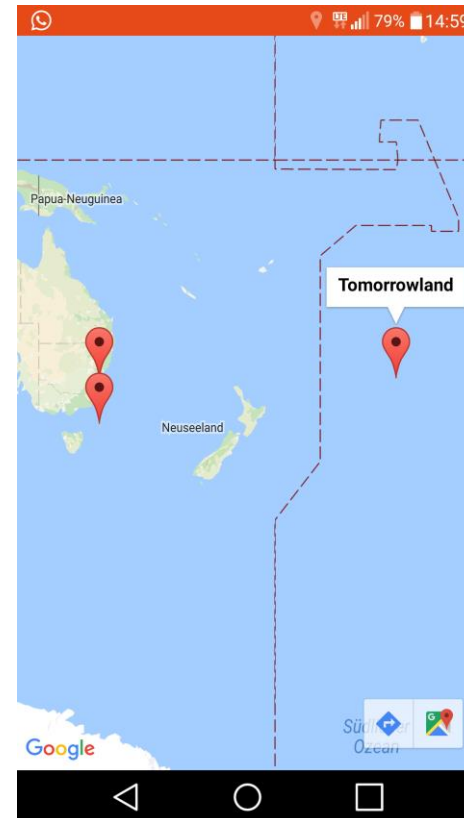
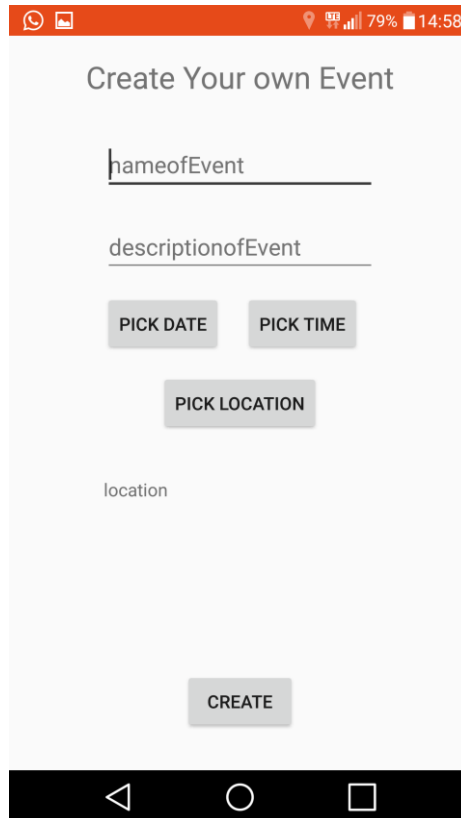
Use Case



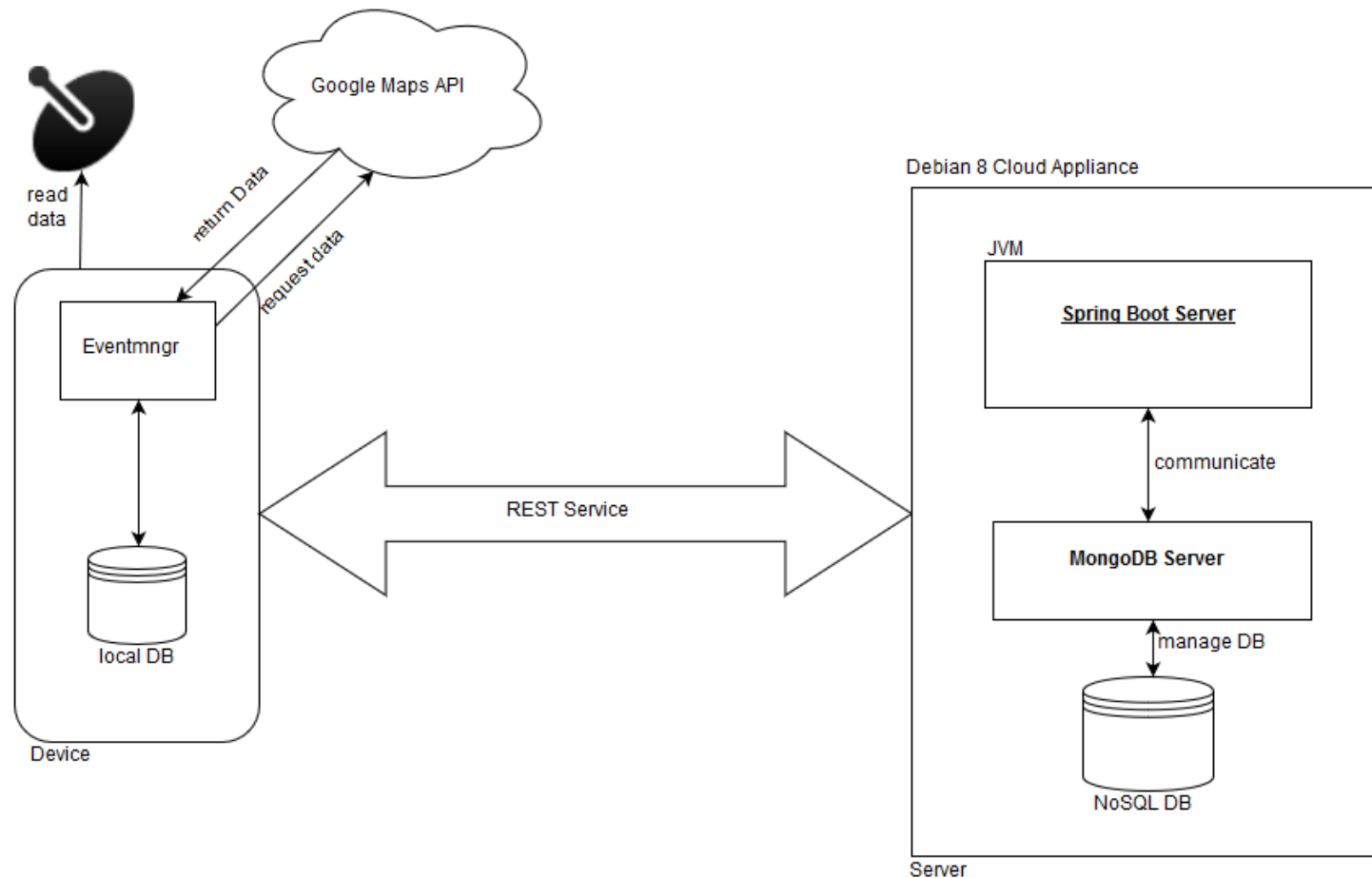
Application Scenario: Prototype



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Architecture



Technologies

Spring Boot and Data Framework

- Database Management (MongoDB)
- Delivers REST API

Location Tracking

- GPS, WiFi, GSM
- Google Maps

Development

- Android SDK
- Java JDK
- Android Studio IDE
- IntelliJ IDEA

Tackled challenges

Offline Challenge

- caching your events
- show event map offline (as far as preloaded)

Location Challenge

- get location via Android build-in tools
- index event database by location for faster queries

Battery Life / Energy Consumption

- only fetch nearby events
- only fetch if battery and connection type are suggesting it

Context and adaption

Context Information

- network speed and availability
- Location

Adaption mechanisms

- Filtering (focus on own events)
- Caching of data in local DB
- Hoarding (collect data from different 3rd party sites)
- Emulation (manipulate data while offline)

Issues and lessons learned

- Getting started with android programming
- work with frameworks for web development
- context-awareness holds obstacles to conquer
- work with partner and communicate on regular base
- restructuring of data scheme takes a lot of time