

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

# Application Development for Mobile and Ubiquitous Computing

Seminar Task Final Presentation Application: **MeetUp!** 

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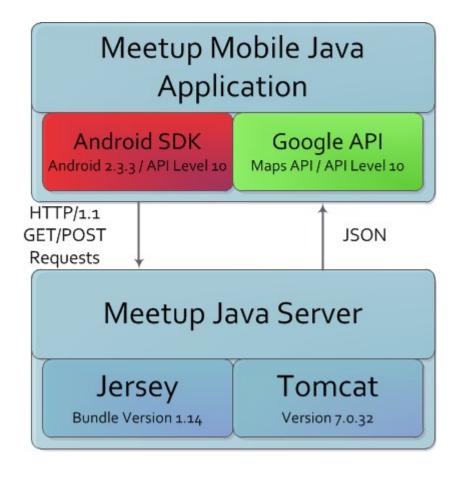
- Meet "MeetUp!" again
- Architecture
- Application scenario
- Goals and limitations
- Possibilities and experiences



- We're building a **location based** chat client for Android
- You can create and join so called chat
  zones on a map
- Within you can anonymously chat with all members of that themed zone
- A theme can be a topic of interest or name of a location



Overview of the project's architecture







## Login / Error handling

- Check if all necessary technologies are available
- If so, User is registered with the server and can continues to the **Map**View

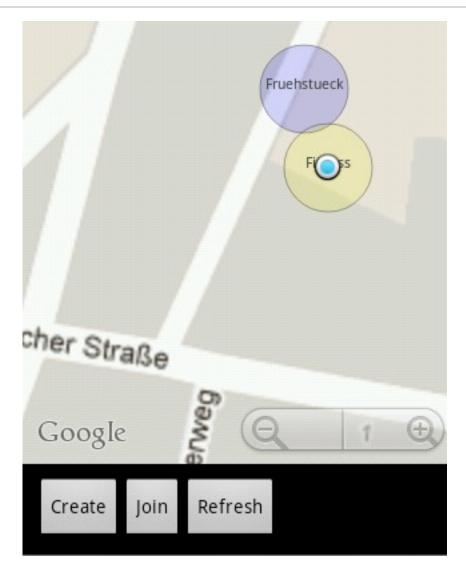






## Map View

- Once logged in, users can see their current location and chat zones nearby
- From here you can create and join zones







#### Create Zone

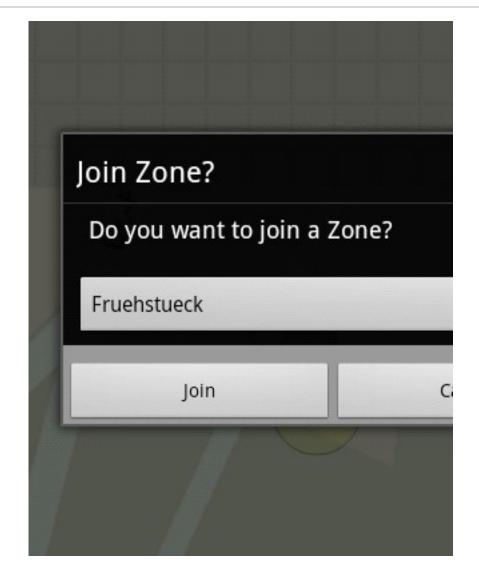
- User chooses title and size of the new zone
- When created User is directed to the **ChatRoom**





#### Join Zone

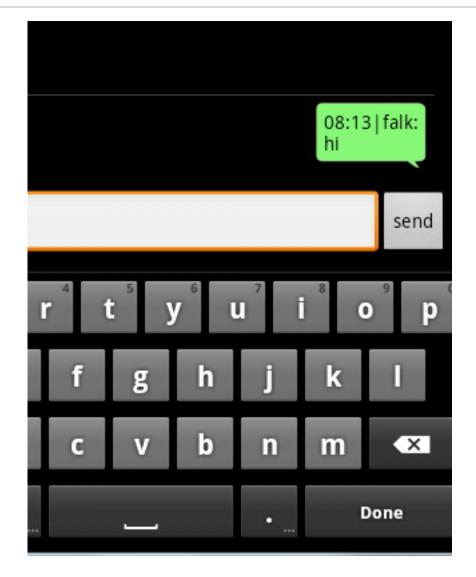
- User chooses which Zone to join
- After joining User is directed to the **ChatRoom**





### Chat Room

- "Bubble-style" ChatRoom
- From here user can leave zone and go back to Map View







- Server-Client communication
- Join and create zones around you
- Fancy chat room layout "bubble-style"
- Present message when about to leave current zone and further notifications
- Multi user test from different virtual machines
- Followed by test with actual devices and online MeetUp! Service
- Optimized GPS-request-algorithm
- Messages transported via push (Session Management) (now: polling with user token)



## Possibilities and experiences

- Adopting Google Maps API v2
- Secure messaging
- Possibility to whisper to other users
- Further prolong battery life
- Difficulties with different API level, migration complicated
- Fast development → API changes, different techniques for API keys
- Nevertheless fast and convenient App development possible



Thank you for your attention!

Are there any questions?