

# Application Development for Mobile and Ubiquitous Computing

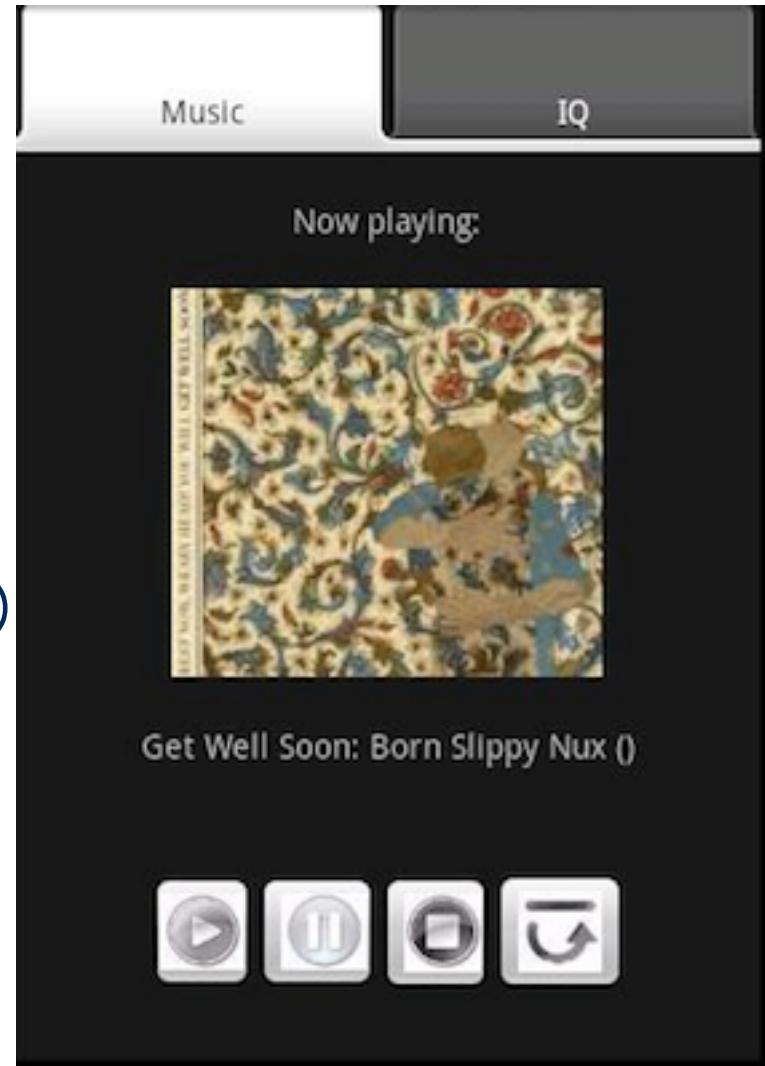
MusIQ

Final Presentation

GroupNo. 6

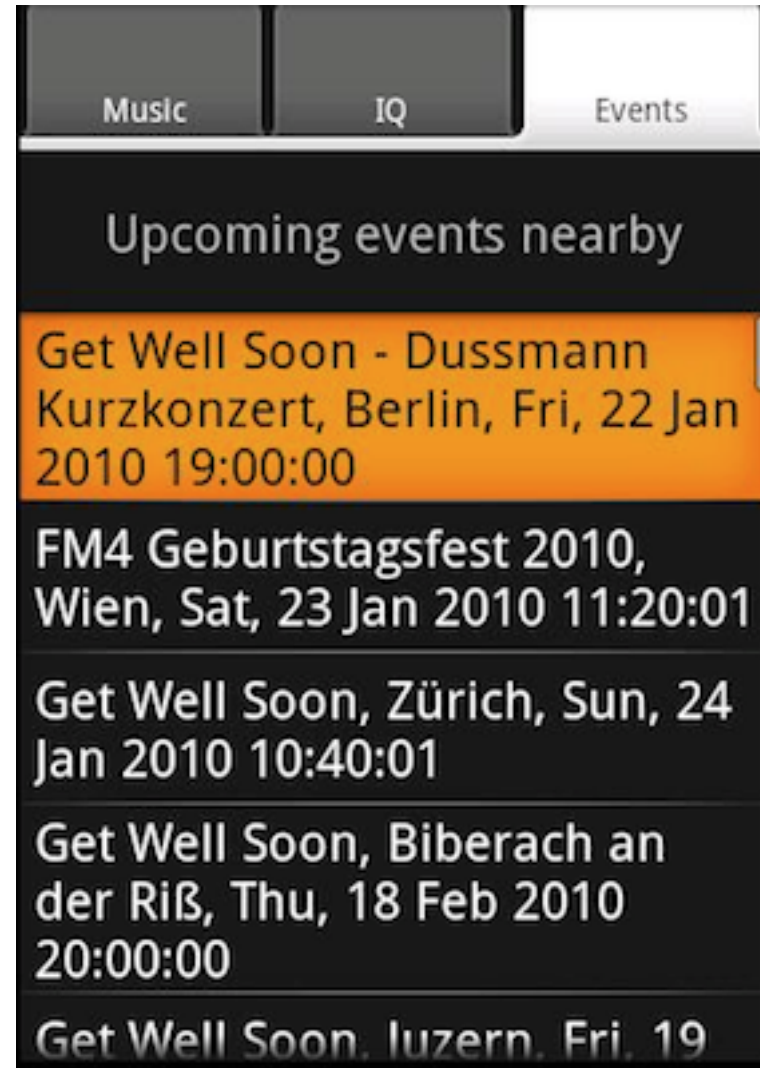
Team: Sina Grunau, Sebastian Hagedorn

- Simple music player with basic functionality
- Application fetches additional information (video, biography, discography, nearby events) according to currently playing song



- No accurate location information necessary
- Coordinates are calculated once a song has started
- Notification to application when information is available & ready
- Consideration of different kinds of sensors (GPS, WiFi,...) depending on hardware & availability
- Difficulties:
  - Providing the emulator with mock information
  - Few examples for right API use

- Switched from Eventful.com to Last.fm for better access and more data
- Procedure:
  - Search for related artists -> List of artists
  - Search for events nearby for all artists in list
  - Special case 1: Not enough relevant events nearby -> additionally next tourdates of artist
  - Special case 2: No location information -> check for location-independent dates for artists
  - Special case 3: No feasible artist information from MP3 file: Upcoming events close to user



- Comfortable IDE, easy to implement basic applications and functionality
- Helpful documentation & emulator
- Most Java SE libraries can be used
- Open Source Community
- Nice GUI elements
  
- Unexpected problems, e.g. no functionality for closing a tab
- Problematic layout management
- Missing documentation of Exceptions
- Lack of control over application lifecycle

- Simulated hardware: GPS, storage, network
- Emulator limitations: Not all external software can be installed (YouTube Player)
- Installation on our test device G1:
  - GPS is easier to use on hardware than on the emulator
  - Access to music on SD card worked immediately
  - Unforeseen warnings
  - YouTube videos can be played
  - Unexpected behaviour after switching to landscape mode

-> Testing on device cannot be replaced by emulator!

- Challenges:
  - Technological challenges:
    - Battery life
      - GPS sensor (de)activation
  - Customer satisfaction
    - Functions for the right time & place
      - Adaptive event search
    - Almost no user input necessary
- Limits:
  - Simple music player
  - Depending on availability of & access to data
  - Use of external solutions



- Bug fixes & trivia
  - Short documentation
  - Submission on 02/05
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- Practical experience of lecture content
  - Result: Application for actual use
  - Introduction to interesting & important topic for the future