TECHNISCHE UNIVERSITÄT DRESDEN

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

Application Development for Mobile and Ubiquitous Computing

Seminar Task
Final Presentation

GroupNo. 4
Team: Tomasz Jankowski, Przemyslaw Michalak

Agenda

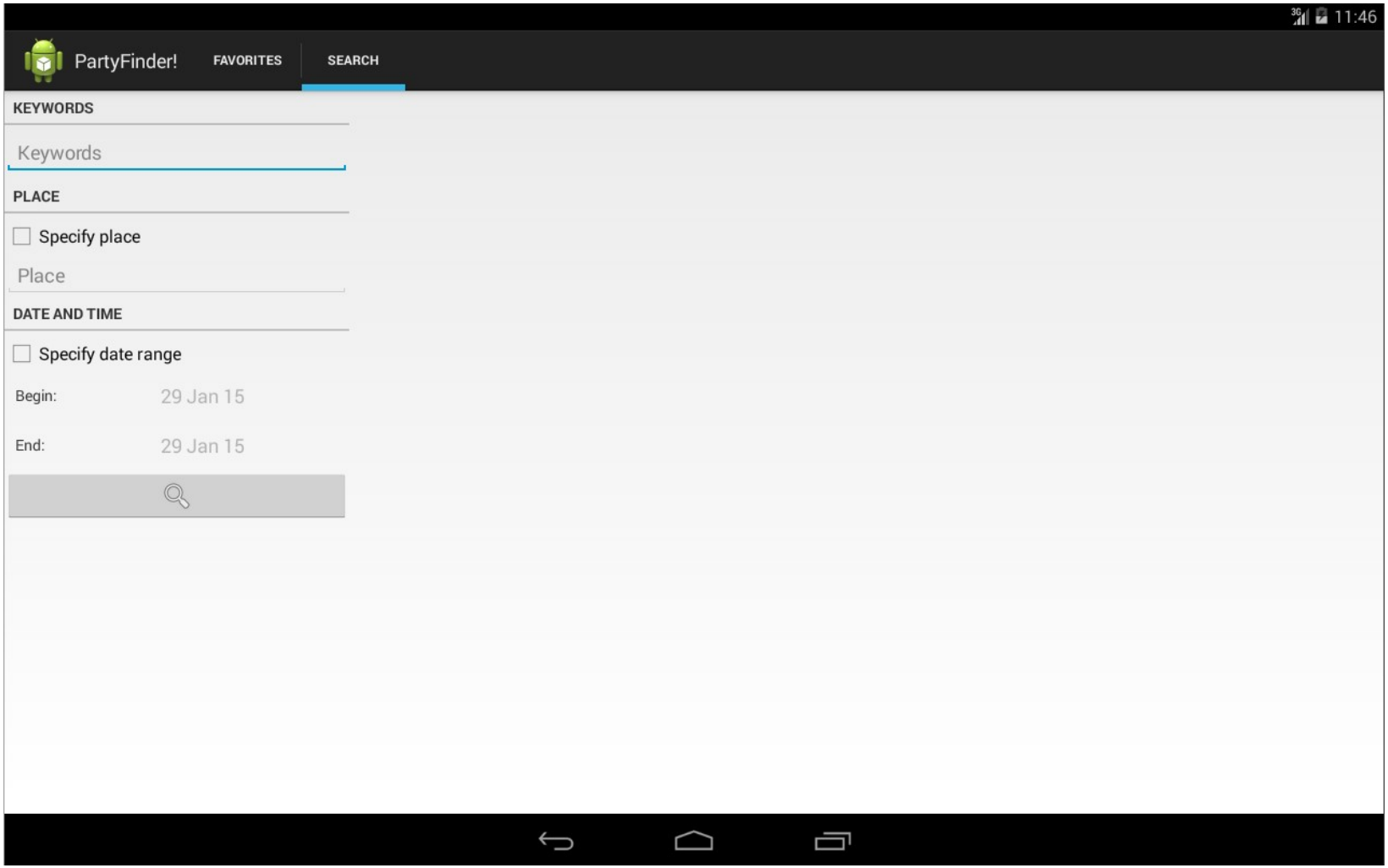
- Concept
- Use cases and screen shoots
- Technologies
- Implementation details
- Summary

PartyBrowser!

- Searching for events on Facebook
- Using context information
- Saving favorite events
- Filtering and conversion of media
- Tablet and smartphone versions

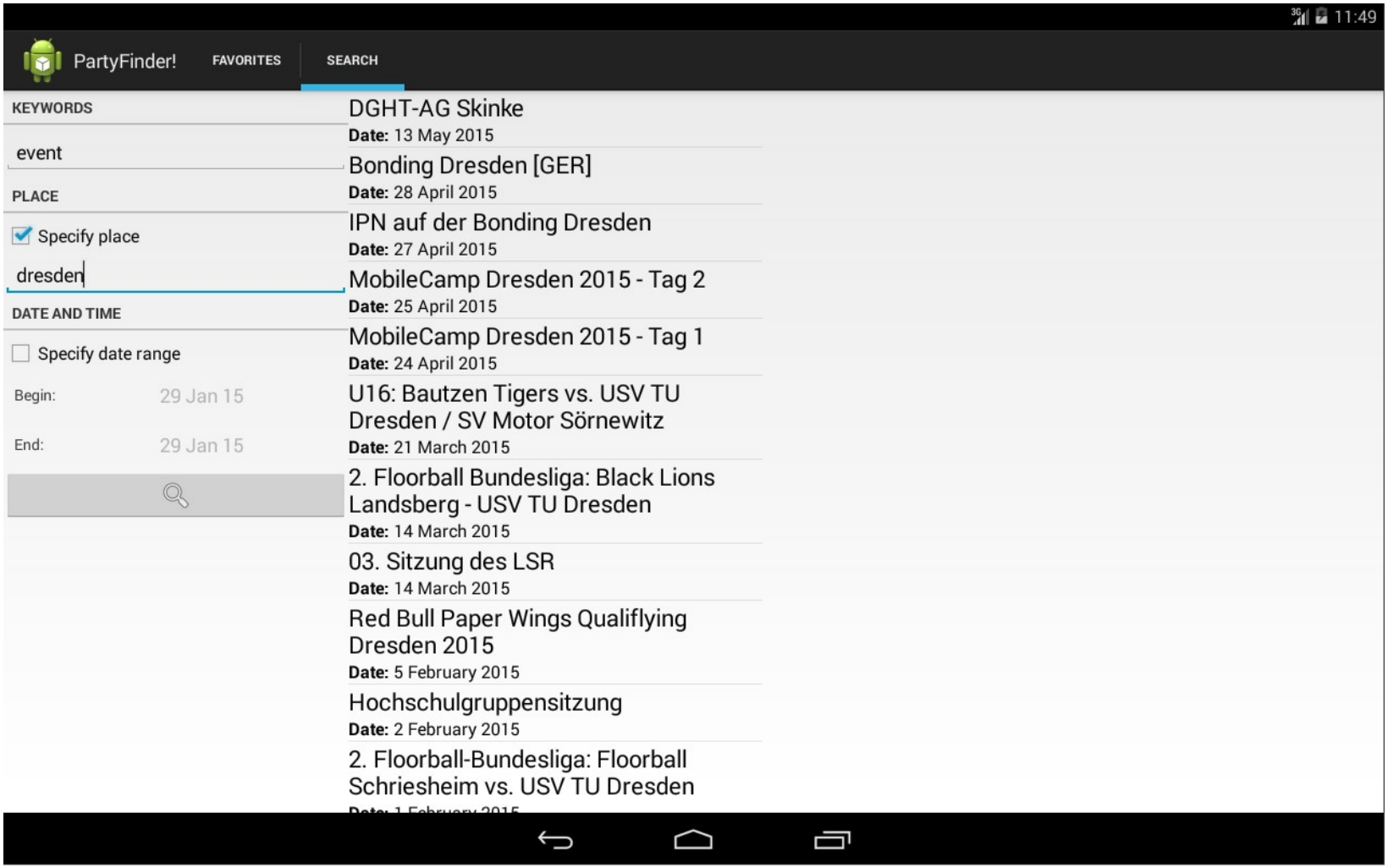
Architecture

Searching for events



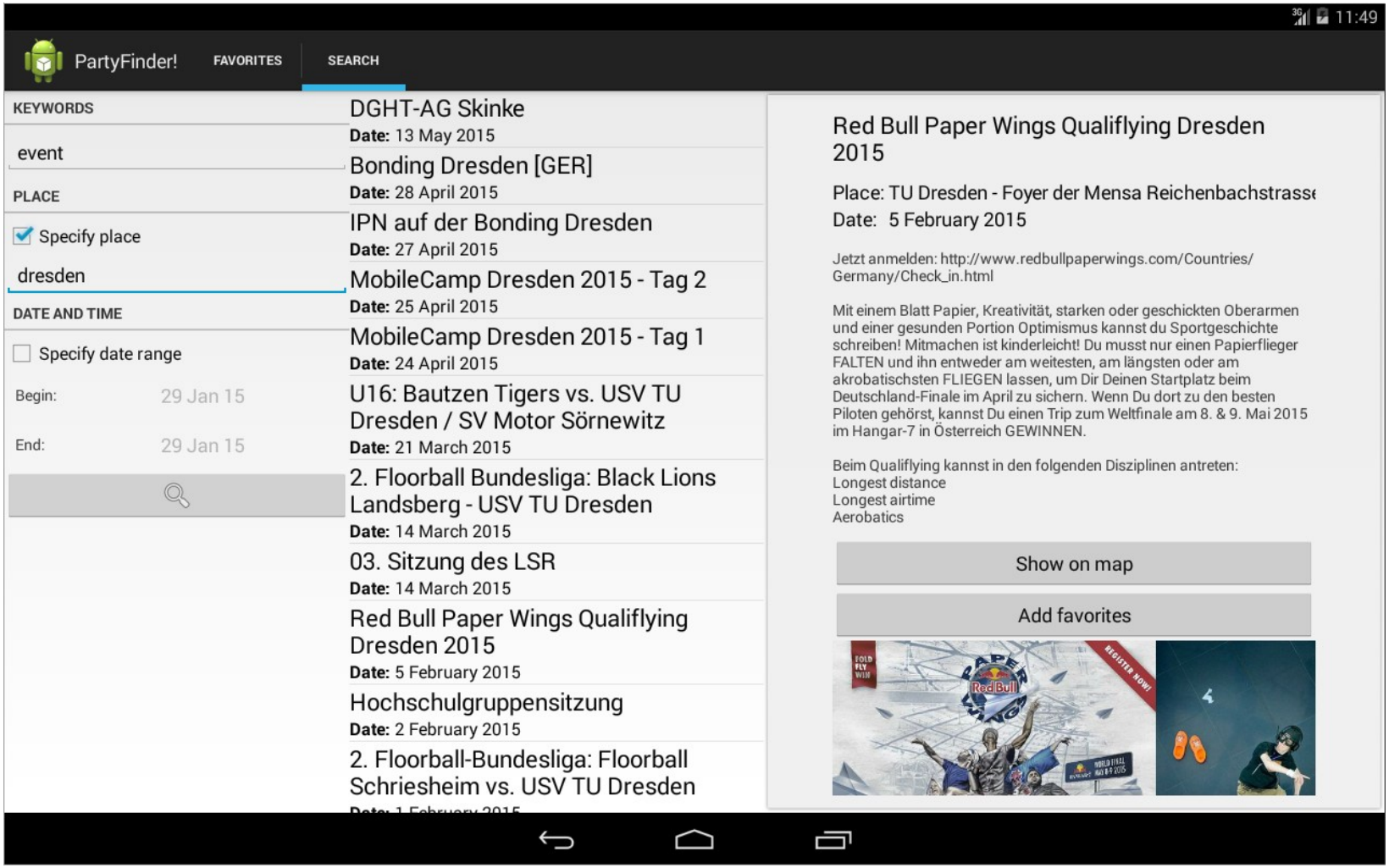
TECHNISCHE UNIVERSITÄT DRESDEN

Searching for events

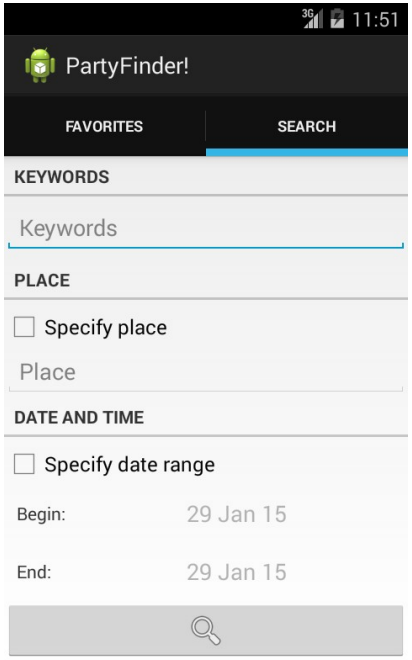


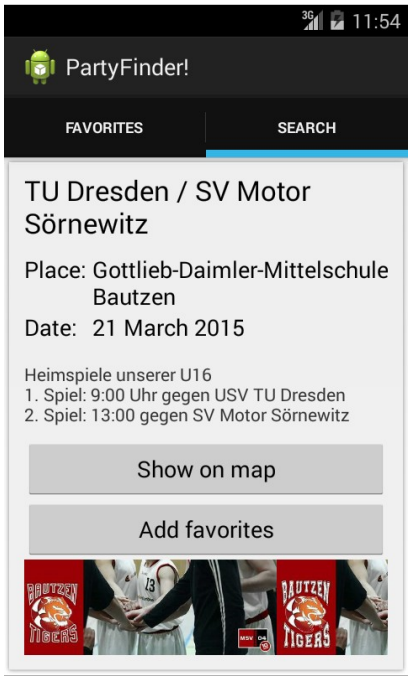
TECHNISCHE UNIVERSITÄT DRESDEN

Searching for events

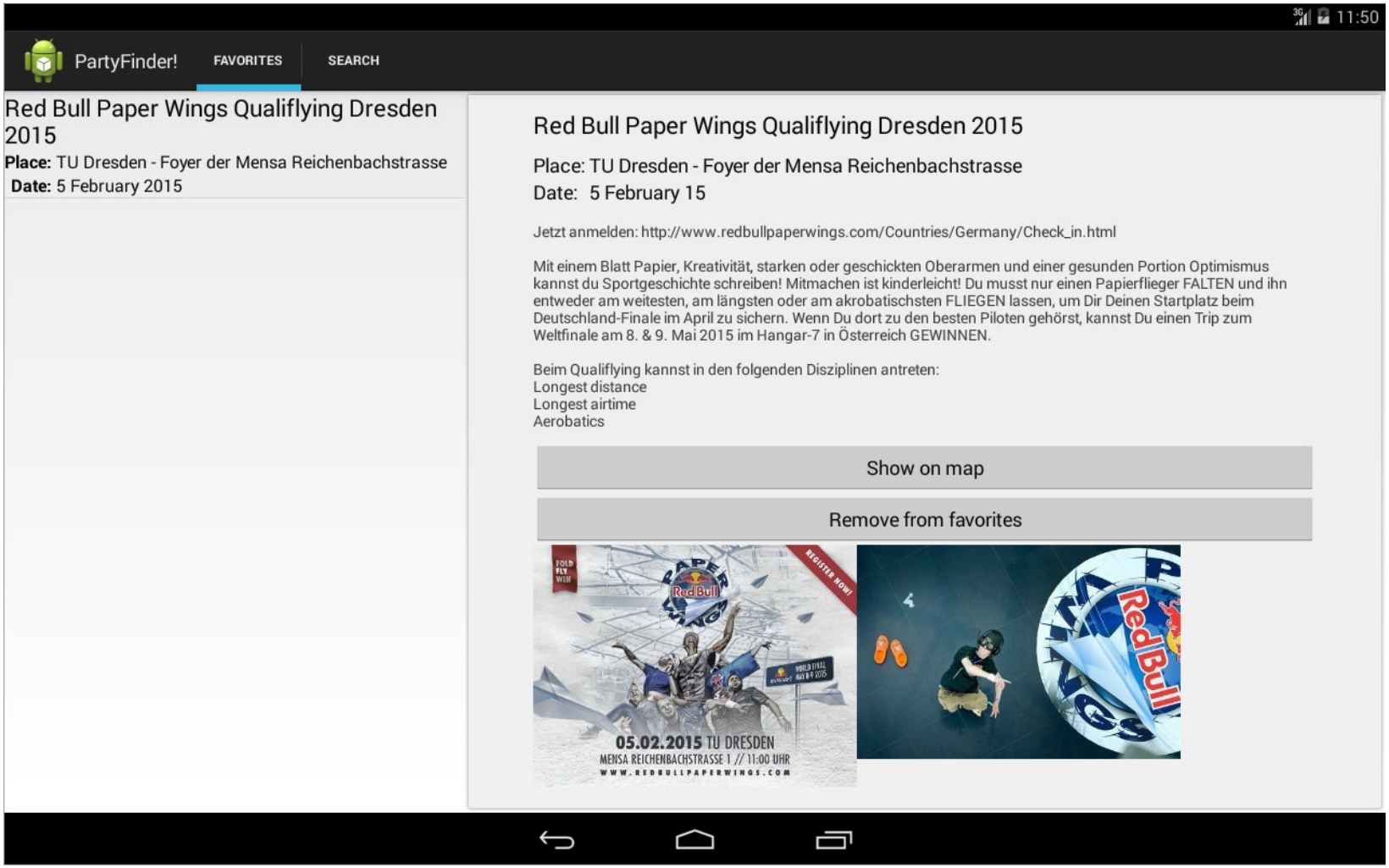


Searching for events

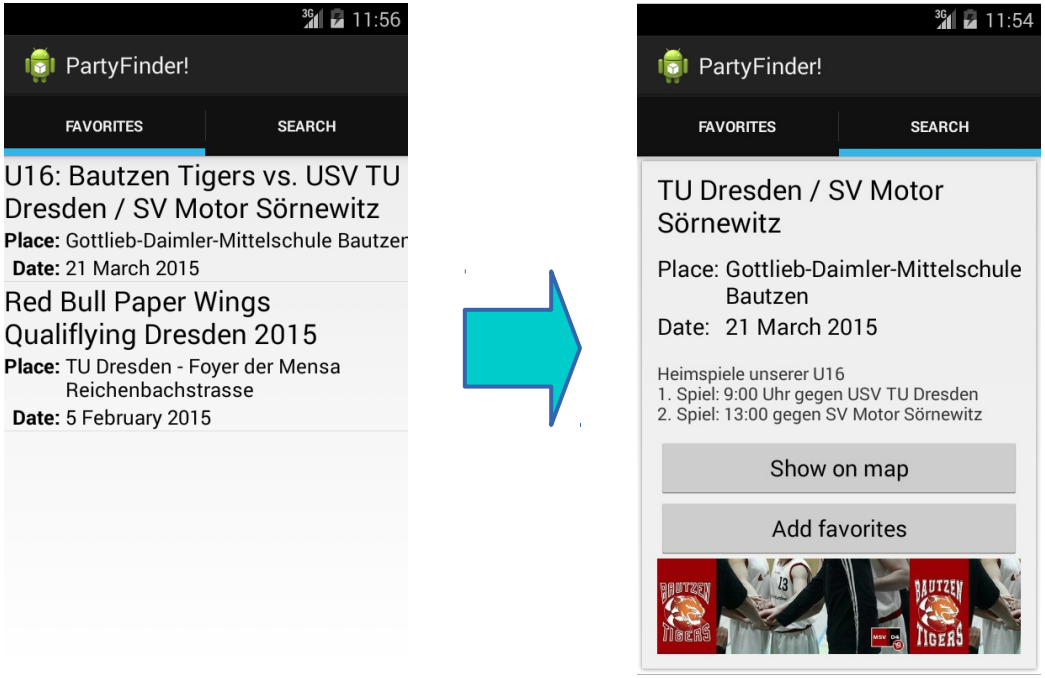




Favorites


11:50
PartyFinder!
FAVORITES
SEARCH
Red Bull Paper Wings Qualiflying Dresden 2015
Place: TU Dresden - Foyer der Mensa Reichenbachstrasse
Date: 5 February 2015
Red Bull Paper Wings Qualiflying Dresden 2015
Place: TU Dresden - Foyer der Mensa Reichenbachstrasse
Date: 5 February 15
Jetzt anmelden: http://www.redbullpaperwings.com/Countries/Germany/Check_in.html
Mit einem Blatt Papier, Kreativität, starken oder geschickten Oberarmen und einer gesunden Portion Optimismus kannst du Sportgeschichte schreiben! Mitmachen ist kinderleicht! Du musst nur einen Papierflieger FALTEN und ihn entweder am weitesten, am längsten oder am akrobatischsten FLIEGEN lassen, um Dir Deinen Startplatz beim Deutschland-Finale im April zu sichern. Wenn Du dort zu den besten Piloten gehörst, kannst Du einen Trip zum Weltfinale am 8. & 9. Mai 2015 im Hangar-7 in Österreich GEWINNEN.
Beim Qualiflying kannst in den folgenden Disziplinen antreten:
Longest distance
Longest airtime
Aerobatics
Show on map
Remove from favorites
FOLD FLY WIN
REGISTER NOW!
Red Bull
05.02.2015 TU DRESDEN
MENSA REICHENBACHSTRASSE 1 // 11:00 UHR
WWW.REDBULLPAPERWINGS.COM
Red Bull

Favorites

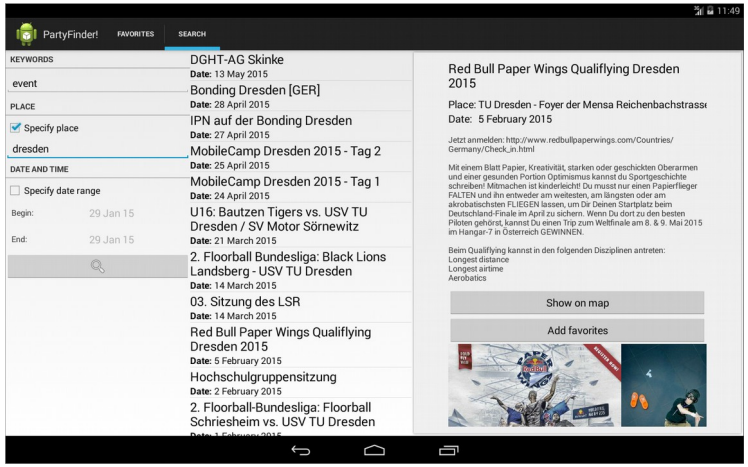

11:56
PartyFinder!
FAVORITES
SEARCH
U16: Bautzen Tigers vs. USV TU Dresden / SV Motor Sörnewitz
Place: Gottlieb-Daimler-Mittelschule Bautzer
Date: 21 March 2015
Red Bull Paper Wings Qualiflying Dresden 2015
Place: TU Dresden - Foyer der Mensa Reichenbachstrasse
Date: 5 February 2015
11:54
PartyFinder!
FAVORITES
SEARCH
TU Dresden / SV Motor Sörnewitz
Place: Gottlieb-Daimler-Mittelschule Bautzen
Date: 21 March 2015
Heimspiele unserer U16
1. Spiel: 9:00 Uhr gegen USV TU Dresden
2. Spiel: 13:00 gegen SV Motor Sörnewitz
Show on map
Add favorites

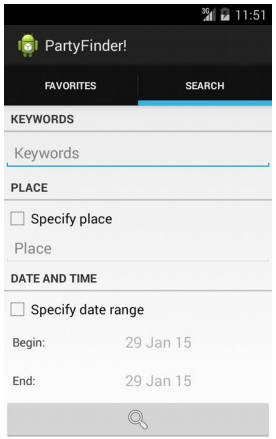
- Technologies
  - Android platform
    - Access context information (e.g. `ConnectivityManager` class)
    - Persistent storage (SQLite)
  - User Interface
    - Fragments
    - TouchImageView
  - Additional dependencies
    - Google Maps
    - Google APIs Client Library (JSON support)
    - Google HTTP Client Library

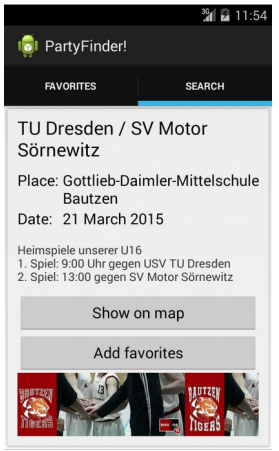
} *Used by auto-generated Server API library*

Mobile Application

- Internet connection-dependent behavior
  - Events fetching policy
  - Refreshing favorite events
- Navigation to events
  - Using Google Maps and GPS
- Support various screen sizes
  - Fragments

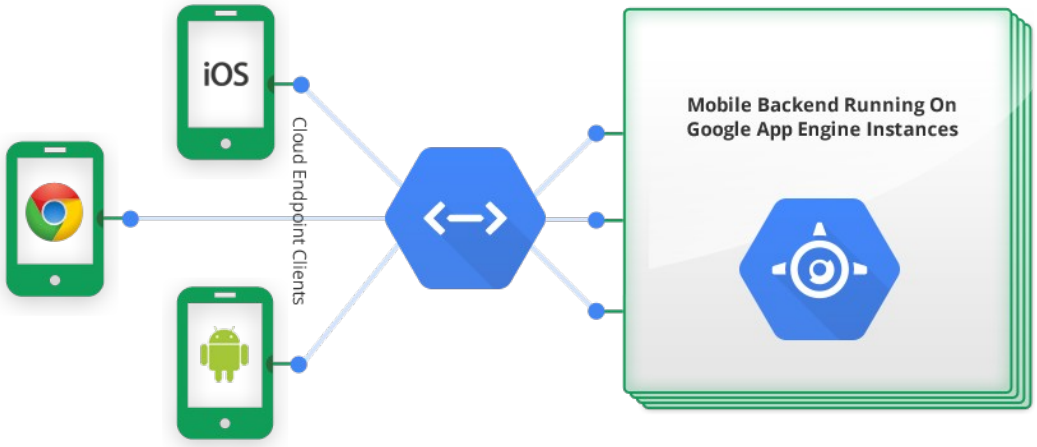






Server

- Technologies
  - Google App Engine (PaaS)
  - Google Cloud Endpoints
  - Python (with additional modules)
  - Facebook GraphAPI (Python Facebook SDK)



Server

- Obtain events from Facebook (with filtering)
- Image processing
  - Using Python Imaging Library (PIL)
    - Conversion to JPEG
    - Resizing
- Exposed API
  - Searching events
  - Fetching events

Summary

- Android platform
  - Overall complexity
  - Implementing UI using Fragments is sometimes problematic
  - Backward compatibility
  - Context-awareness requires lot of effort
- Server
  - Application may suffer from underlying platform delays
  - Google Cloud Endpoints requires special annotations

Questions?