



# Application Development for Mobile and Ubiquitous Computing

## Seminar Task Final Presentation

GroupNo. 4

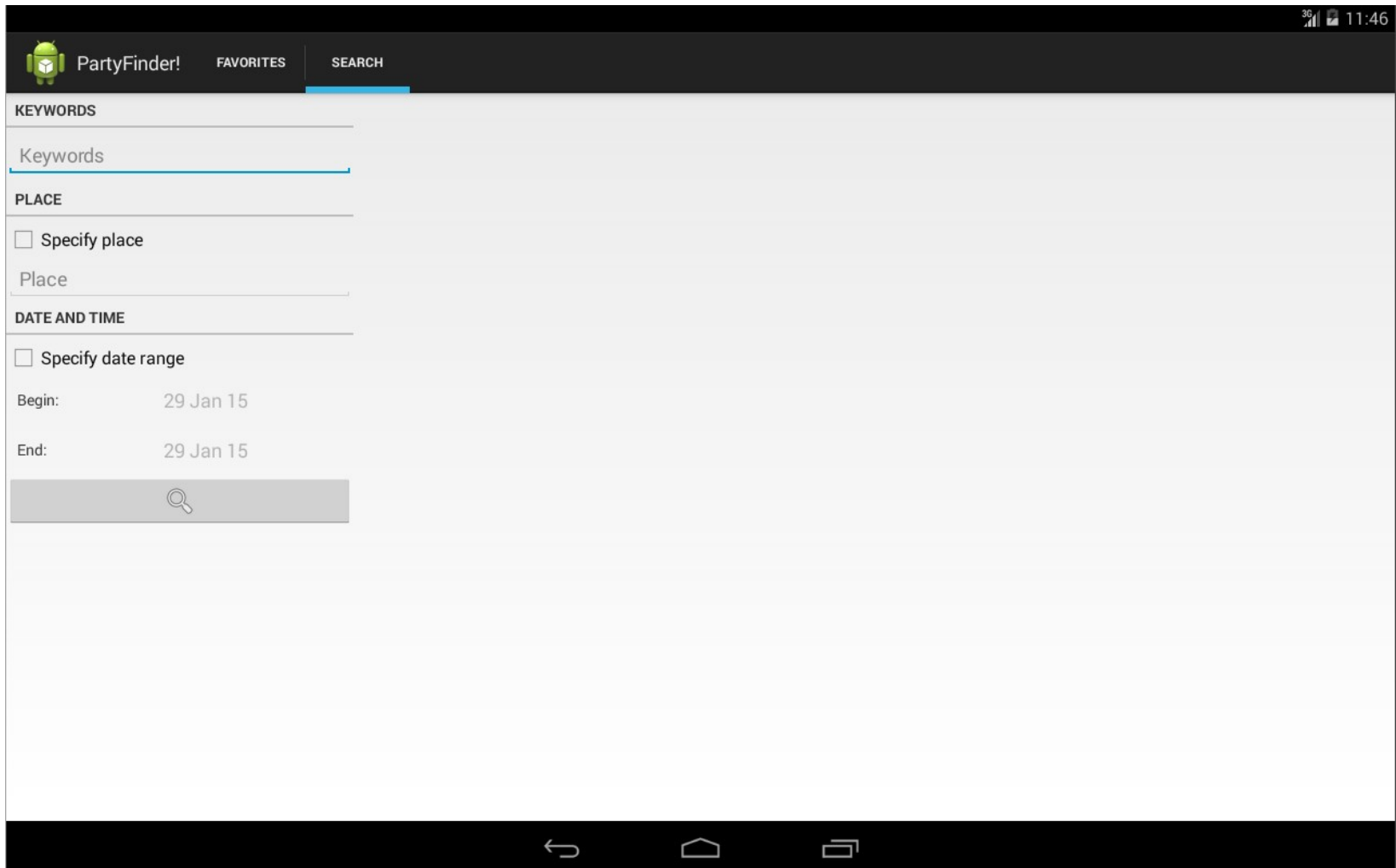
Team: Tomasz Jankowski, Przemyslaw Michalak

- 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





PartyFinder! FAVORITES SEARCH

KEYWORDS

Keywords

PLACE

Specify place

Place

DATE AND TIME

Specify date range

Begin: 29 Jan 15

End: 29 Jan 15

Search



The screenshot shows the PartyFinder! mobile application interface. At the top, there is a navigation bar with the app name and icons for 'FAVORITES' and 'SEARCH'. The search results are displayed in a list format, with filters for 'KEYWORDS', 'PLACE', and 'DATE AND TIME'. The search term 'dresden' is entered in the 'PLACE' filter. The results list includes events such as 'DGHT-AG Skinke', 'Bonding Dresden [GER]', 'IPN auf der Bonding Dresden', 'MobileCamp Dresden 2015 - Tag 2', 'MobileCamp Dresden 2015 - Tag 1', 'U16: Bautzen Tigers vs. USV TU Dresden / SV Motor Sörnewitz', '2. Floorball Bundesliga: Black Lions Landsberg - USV TU Dresden', '03. Sitzung des LSR', 'Red Bull Paper Wings Qualifying Dresden 2015', 'Hochschulgruppensitzung', and '2. Floorball-Bundesliga: Floorball Schriesheim vs. USV TU Dresden'. The bottom of the screen shows the Android navigation bar with back, home, and recent apps buttons.

PartyFinder! FAVORITES SEARCH

KEYWORDS event

PLACE  Specify place dresden

DATE AND TIME  Specify date range

Begin: 29 Jan 15

End: 29 Jan 15

DGHT-AG Skinke  
Date: 13 May 2015

Bonding Dresden [GER]  
Date: 28 April 2015

IPN auf der Bonding Dresden  
Date: 27 April 2015

MobileCamp Dresden 2015 - Tag 2  
Date: 25 April 2015

MobileCamp Dresden 2015 - Tag 1  
Date: 24 April 2015

U16: Bautzen Tigers vs. USV TU Dresden / SV Motor Sörnewitz  
Date: 21 March 2015

2. Floorball Bundesliga: Black Lions Landsberg - USV TU Dresden  
Date: 14 March 2015

03. Sitzung des LSR  
Date: 14 March 2015

Red Bull Paper Wings Qualifying Dresden 2015  
Date: 5 February 2015

Hochschulgruppensitzung  
Date: 2 February 2015

2. Floorball-Bundesliga: Floorball Schriesheim vs. USV TU Dresden  
Date: 1 February 2015

3G 11:49
PartyFinder! FAVORITES SEARCH

KEYWORDS	DGHT-AG Skinke
event	<b>Date:</b> 13 May 2015
PLACE	Bonding Dresden [GER]
<input checked="" type="checkbox"/> Specify place	<b>Date:</b> 28 April 2015
dresden	IPN auf der Bonding Dresden
DATE AND TIME	<b>Date:</b> 27 April 2015
<input type="checkbox"/> Specify date range	MobileCamp Dresden 2015 - Tag 2
Begin: 29 Jan 15	<b>Date:</b> 25 April 2015
End: 29 Jan 15	MobileCamp Dresden 2015 - Tag 1
	<b>Date:</b> 24 April 2015
	U16: Bautzen Tigers vs. USV TU Dresden / SV Motor Sörnewitz
	<b>Date:</b> 21 March 2015
	2. Floorball Bundesliga: Black Lions Landsberg - USV TU Dresden
	<b>Date:</b> 14 March 2015
	03. Sitzung des LSR
	<b>Date:</b> 14 March 2015
	Red Bull Paper Wings Qualifying Dresden 2015
	<b>Date:</b> 5 February 2015
	Hochschulgruppensitzung
	<b>Date:</b> 2 February 2015
	2. Floorball-Bundesliga: Floorball Schriesheim vs. USV TU Dresden
	<b>Date:</b> 1 February 2015

## Red Bull Paper Wings Qualifying Dresden 2015



**Place:** TU Dresden - Foyer der Mensa Reichenbachstrasse  
**Date:** 5 February 2015

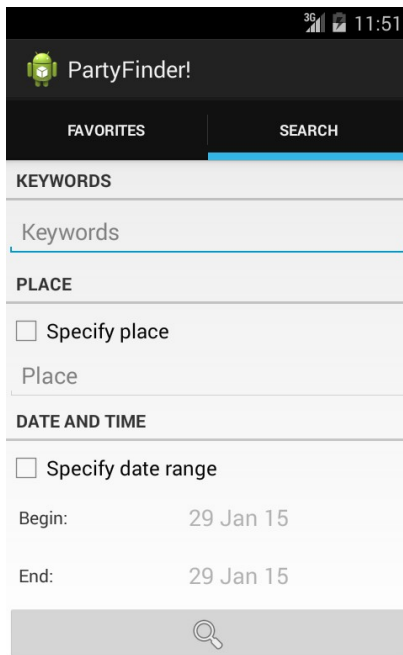
Jetzt anmelden: [http://www.redbullpaperwings.com/Countries/Germany/Check\\_in.html](http://www.redbullpaperwings.com/Countries/Germany/Check_in.html)

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 Qualifying kannst in den folgenden Disziplinen antreten:  
 Longest distance  
 Longest airtime  
 Aerobatics

Show on map  
Add favorites



PartyFinder!

FAVORITES SEARCH

KEYWORDS

Keywords

PLACE

Specify place

Place

DATE AND TIME

Specify date range

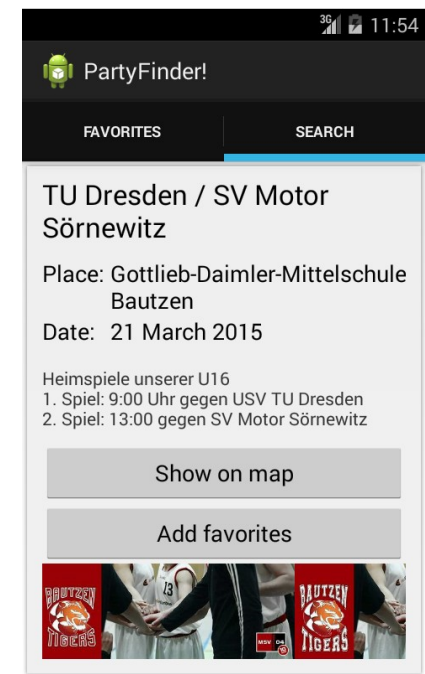
Begin: 29 Jan 15

End: 29 Jan 15

Search icon



- 
- PartyFinder!
- FAVORITES SEARCH
- DGHT-AG Skinke  
Date: 13 May 2015
  - Bonding Dresden [GER]  
Date: 28 April 2015
  - IPN auf der Bonding Dresden  
Date: 27 April 2015
  - MobileCamp Dresden 2015 - Tag 2  
Date: 25 April 2015
  - MobileCamp Dresden 2015 - Tag 1  
Date: 24 April 2015
  - U16: Bautzen Tigers vs. USV TU Dresden / SV Motor Sörnewitz  
Date: 21 March 2015
  - 2. Floorball Bundesliga: Black



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





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](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.

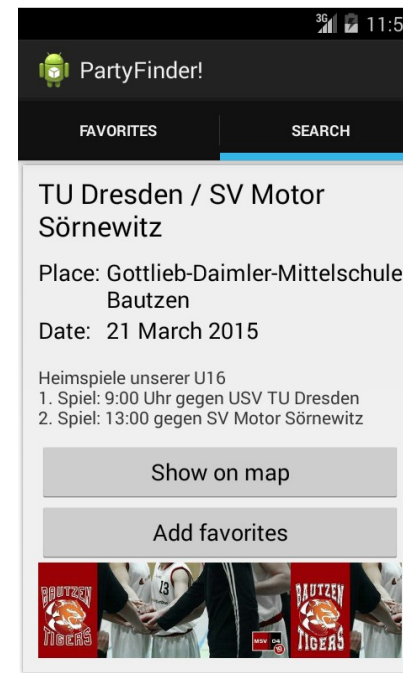
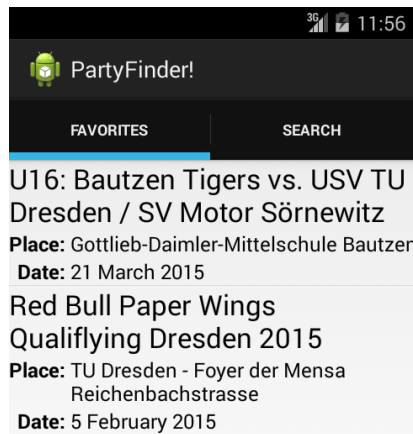
Beim Qualiflying kannst in den folgenden Disziplinen antreten:  
Longest distance  
Longest airtime  
Aerobatics

Show on map

Remove from favorites



05.02.2015 TU DRESDEN  
MENSA REICHENBACHSTRASSE 1 // 11:00 UHR  
WWW.REDBULLPAPERWINGS.COM



- Technologies

- Android platform

- Access context information (e.g. `ConnectivityManager` class)
    - Persistent storage (SQLite)

- User Interface

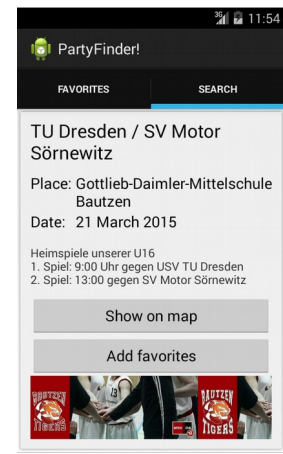
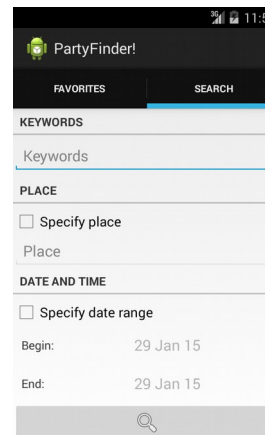
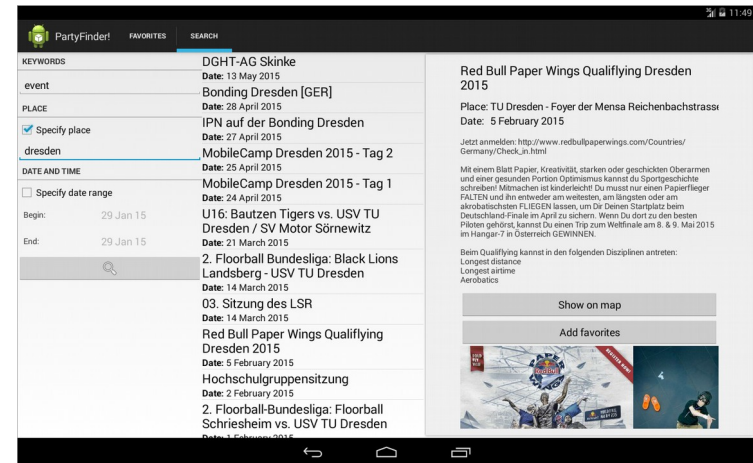
- Fragments
    - `TouchImageView`

- Additional dependencies

- Google Maps
    - Google APIs Client Library (JSON support)
    - Google HTTP Client Library

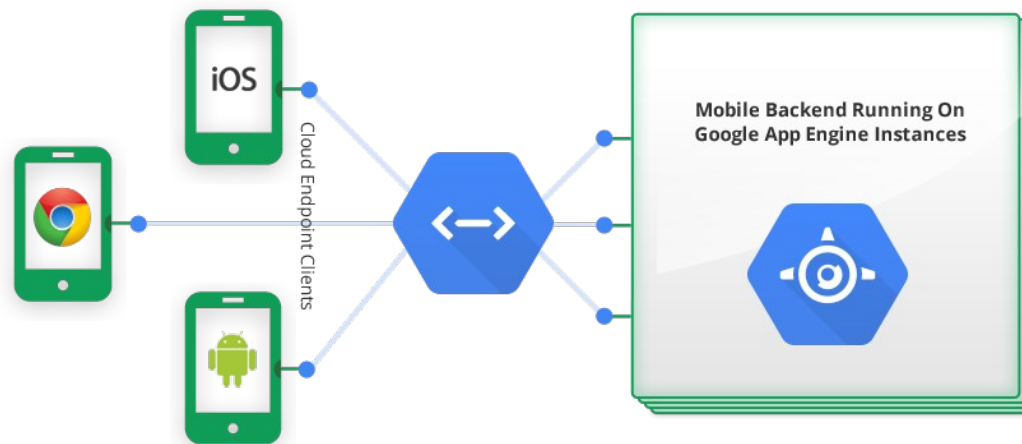
} *Used by auto-generated  
Server API library*

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



- Technologies

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



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

- 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?

