



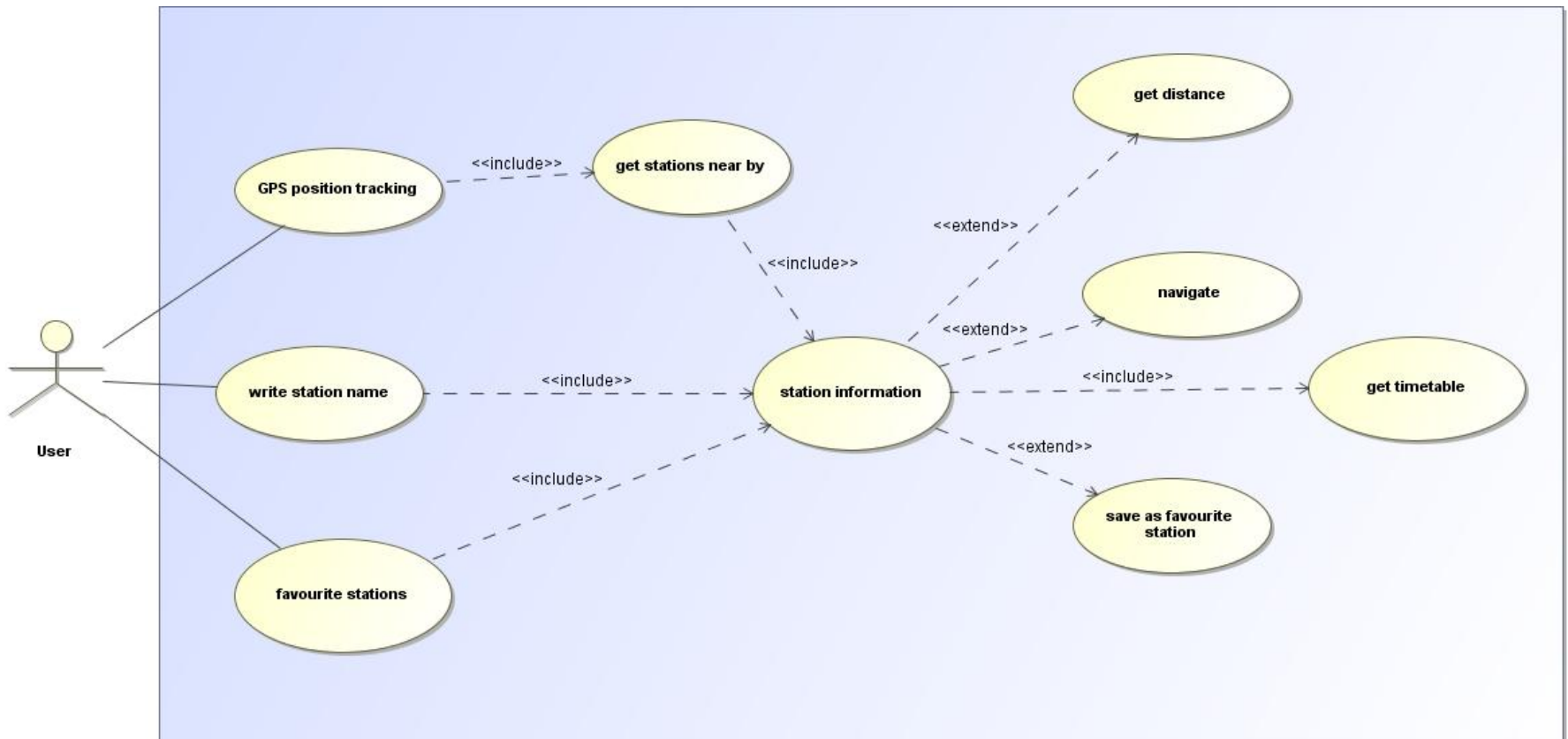
# Application Development for Mobile and Ubiquitous Computing

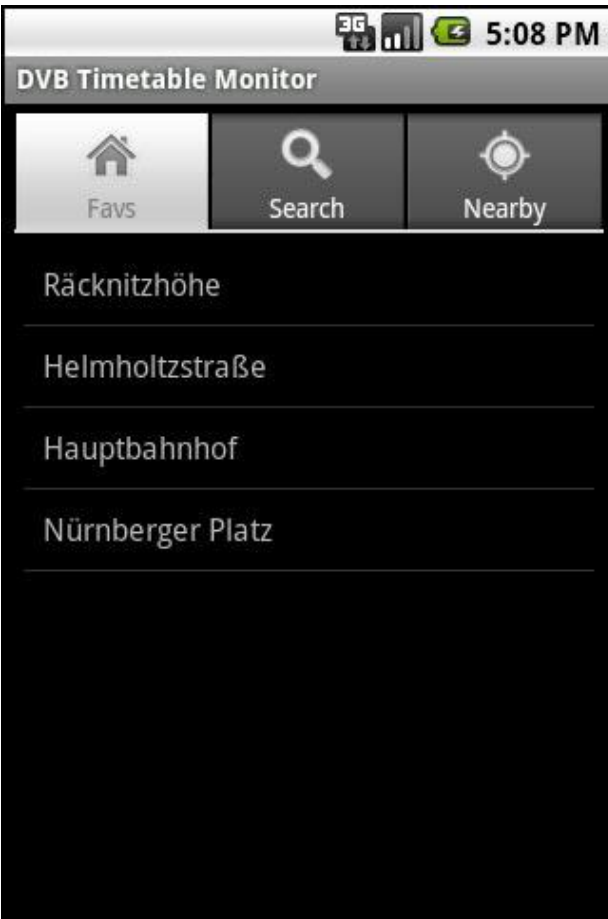
## DVB Timetable Monitor Final Presentation

GroupNo. 8

Team: Marc Göbel, Thilo Gürtler

- Get information about next departures of transportation vehicles (busses, trams, trains) for any DVB station
  - Search for stations via text input
  - Get nearby stations for current position
  - Save favourite stations for quick select
- Get information about how much time a user need to get to the selected station
- Get information about how long the distance to the selected station is
- The user can navigate from his current position to the selected station with a navigation application (e.g. Google Maps)



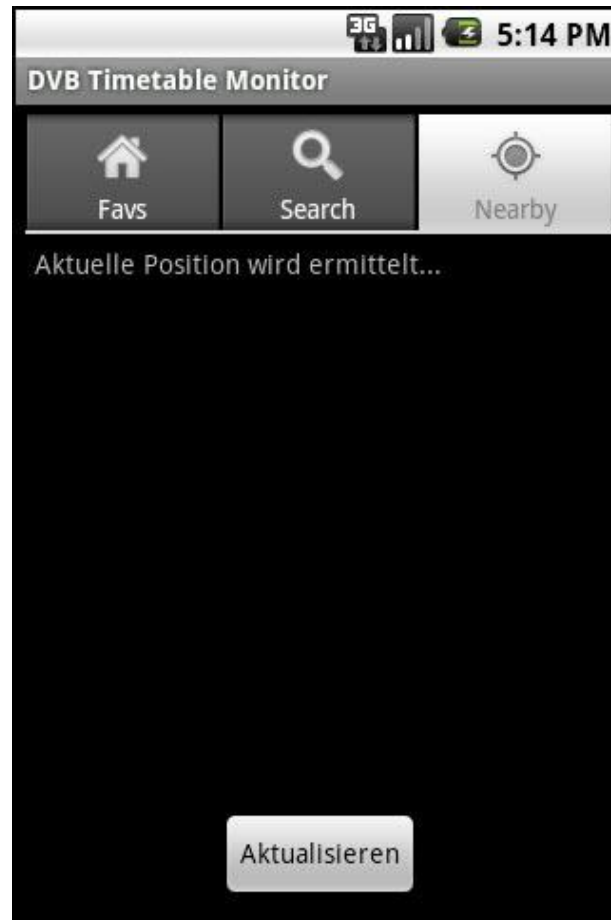
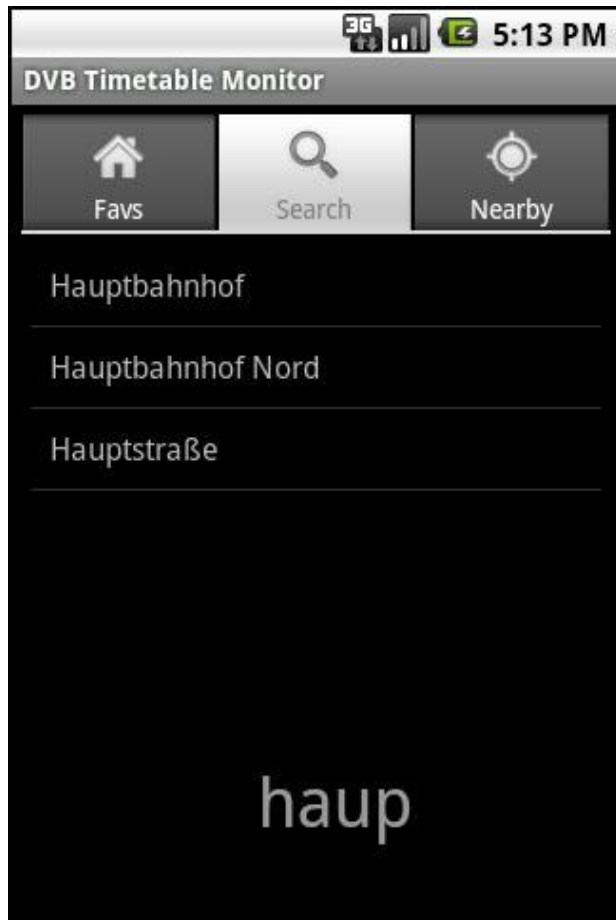



DVB Timetable Monitor

5:11 PM

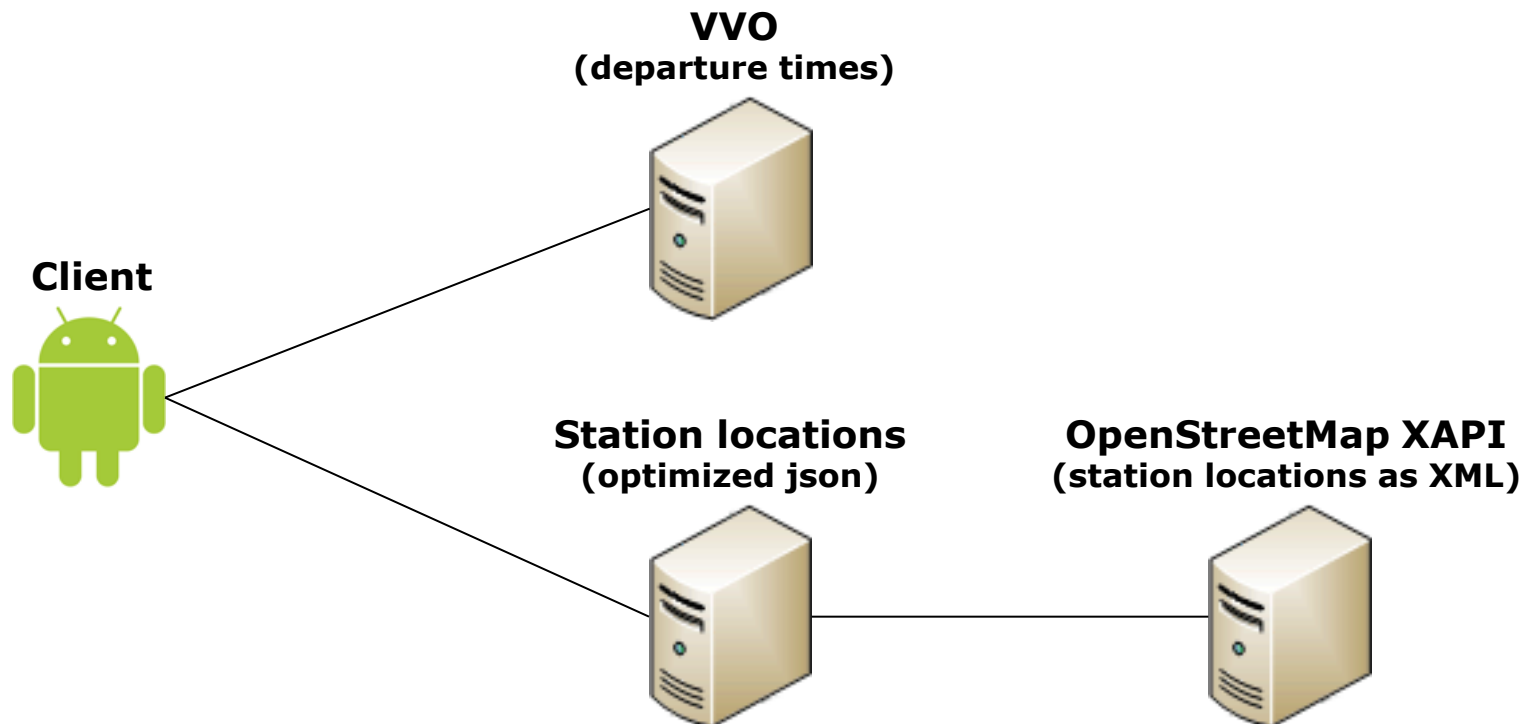
Helmholtzstraße

Linie	Richtung	Min.
 85	Striesen	2
 85	Löbtau Süd	3
 85	Striesen	22
 85	Löbtau Süd	23
 85	Striesen	42
 85	Löbtau Süd	43
 85	Striesen	62



## Permissions needed

- `android.permission.INTERNET`
- `android.permission.ACCESS_FINE_LOCATION`



## Real time

- Request/Response Delays
- Network bandwidth

## Usability

- Quick station selection
- Easy to use

- DVB live data for all available station names
  - strange VVO API
  - solution: set up a list with all station names manually
  
- Calculate distance and time to get to a station
  - The Google Directions API
    - query limit of 2,500 directions requests per day
    - Terms: using Directions data without displaying a map for which directions data was requested is prohibited
  - alternative: calculate air-line distance
  
- XML-Resources
  - ReferenceTable overflow (max=512)  
→ max 512 items
  - alternative: static Array
  
- Unavailable OpenStreetMap XAPI



## Todo

- station view: show time of the request/answer
- station view: add a refresh button
- handle unavailable APIs
- let the user know, that GPS is disabled
- GUI improvements (e.g. better landscape view)