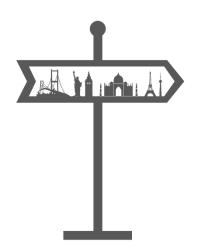


# Application Development for Mobile and Ubiquitous Computing

Seminar Task Final Presentation

GroupNo. 6 Team: Paula Schöley, Sebastian Müller



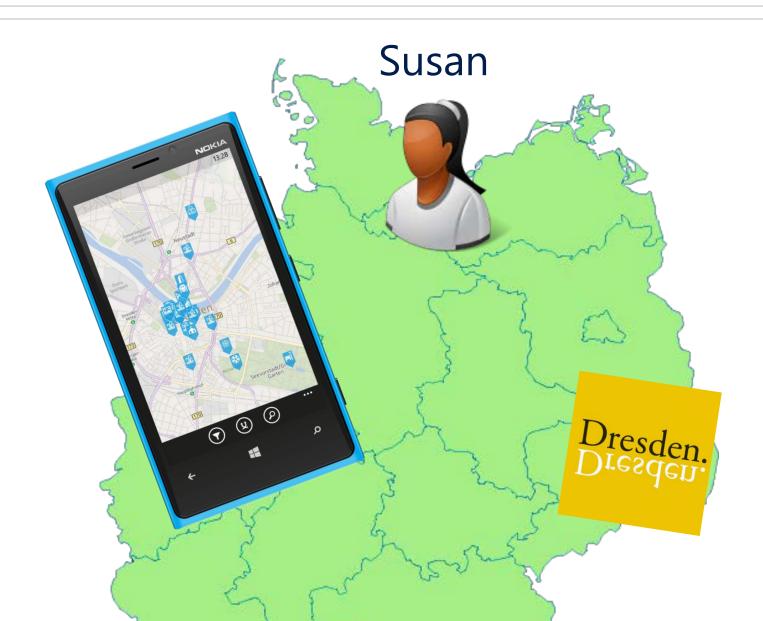


## TOURSQUARE

Go on tour easily!



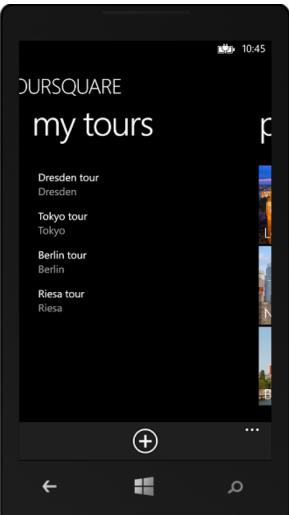


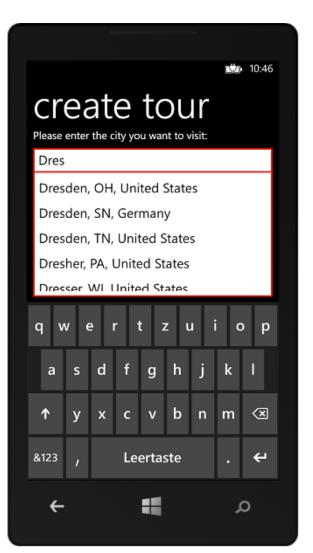








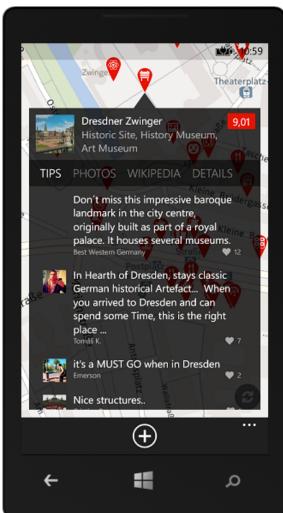


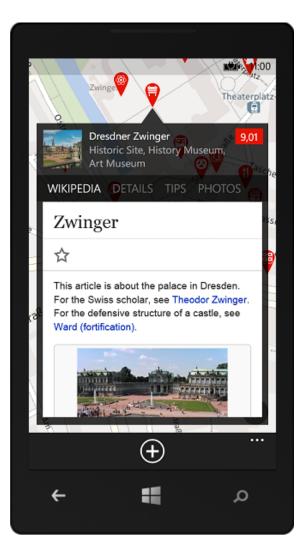






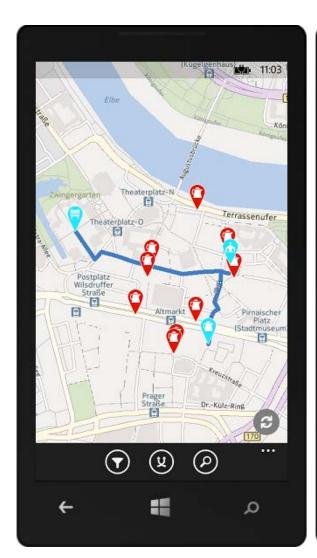


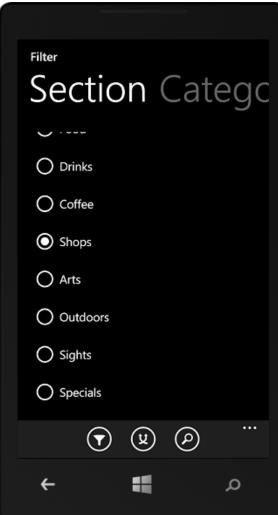


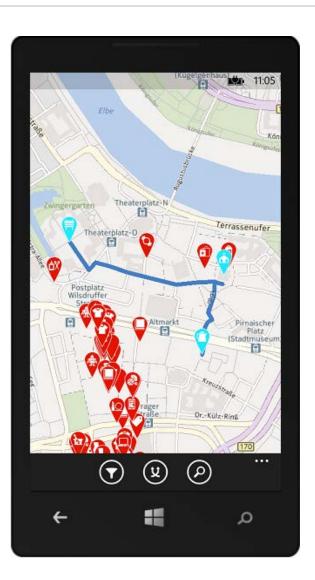






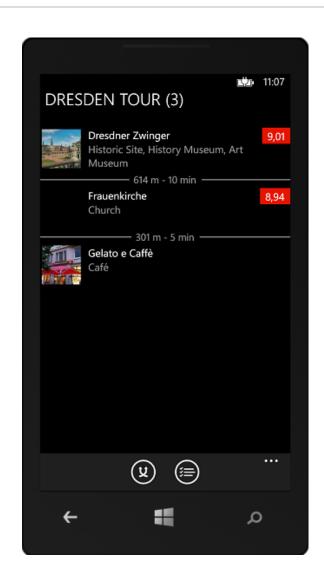


















- Datenquellen
  - Foursquare API
  - City API
  - Wikimedia API
  - Nokia HERE
- Bibliotheken
  - RestSharp
  - MVVM Light
  - Cimbalino
  - Lex.DB
  - Coding4Fun



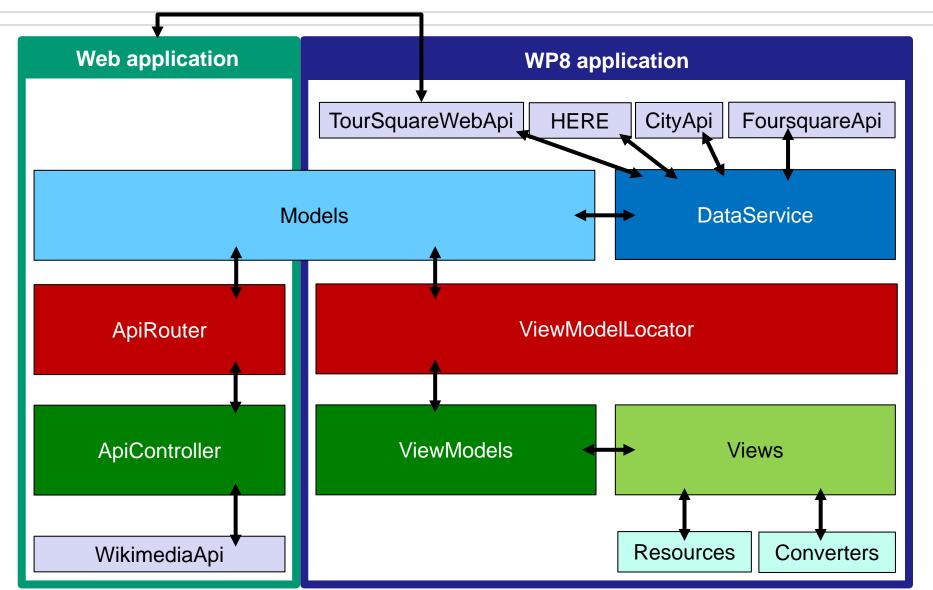








### Complete Architecture







- Connection type
- Prefetching
- Image size
- Reload venues
- Offline database
- Offline image storage



#### Connection types:

|                                  | WiFi | Mobile plan* | Roaming |
|----------------------------------|------|--------------|---------|
| Prefetching                      | Yes  | No           | No      |
| Load data when required          | Yes  | Yes*         | Ask     |
| Refresh cached images            | Yes  | No           | No      |
| Automatically save tours offline | Yes  | No           | No      |

<sup>\*</sup> further distinction using Data Sense feature



#### Prefetching

- Example: searching for cities
  - 1. User enters search query
  - 2. Search request is sent to API
  - 3. API returns list of city names and their IDs
  - 4. While user looks through results, the full city details are being loaded in a background thread
  - 5. When selecting a city, all details are already available



#### Image sizes:

|                              | <b>WVGA</b><br>100% | <b>WXGA</b><br>150% | <b>720p</b><br>160% | <b>1080p</b><br>225% |  |
|------------------------------|---------------------|---------------------|---------------------|----------------------|--|
| Photo<br>thumbnails          |                     |                     |                     |                      |  |
| Available: 36, 100, 300, 500 | 100x100px           |                     | 300x300px           |                      |  |
| Displayed: 75                |                     |                     |                     |                      |  |
| Profile photos               | 100x100px           |                     |                     |                      |  |
| Available: 36, 100, 300, 500 |                     |                     |                     |                      |  |
| Displayed: 40                |                     |                     |                     |                      |  |





- Connection type
- Prefetching
- Image size
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- Culture differences
  - 12,4 vs. 12.4

```
int getRandomNumber()
{
    return 4; // chosen by fair dice roll.
    // guaranteed to be random.
}
```

- Interaction Design
  - reload venues manually vs. automatically
  - location of search bar
  - ambiguous gestures in WebView & Pivot control
- Threading
  - asynchronous communication





Thank you for your attention.

And download TourSquare soon.

