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. 12
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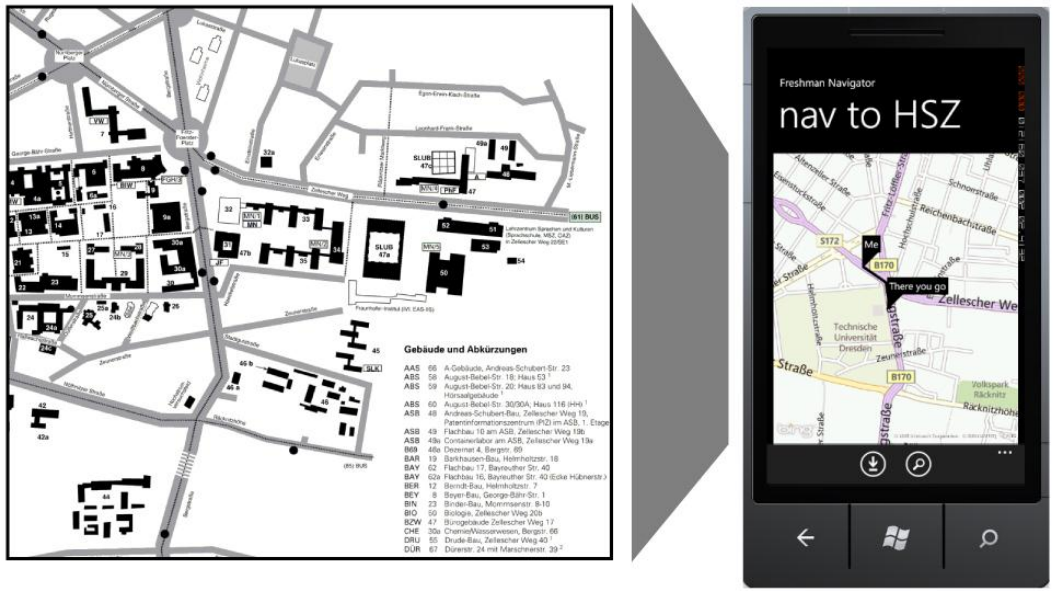
Application Scenario

Freshman's Navigator

- Navigation across campus
- Use of shortcuts for points of interest

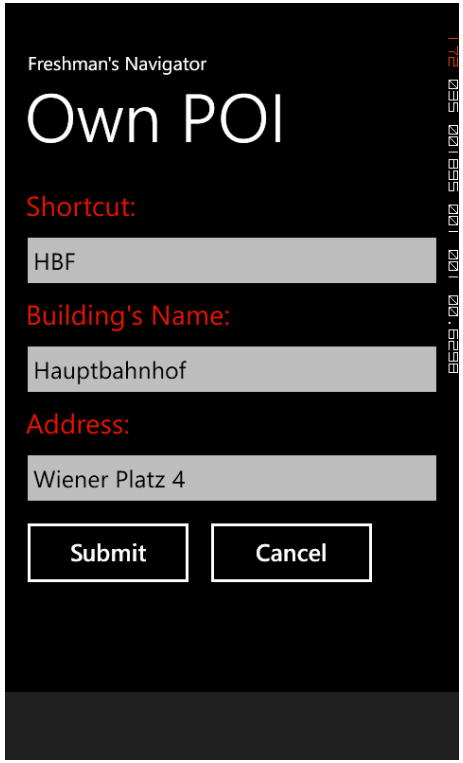


Prototype

- Local storage holds points of interest (POIs)
- ObservableCollection presents POIs
- CollectionViewSource for sortable ObservableCollection

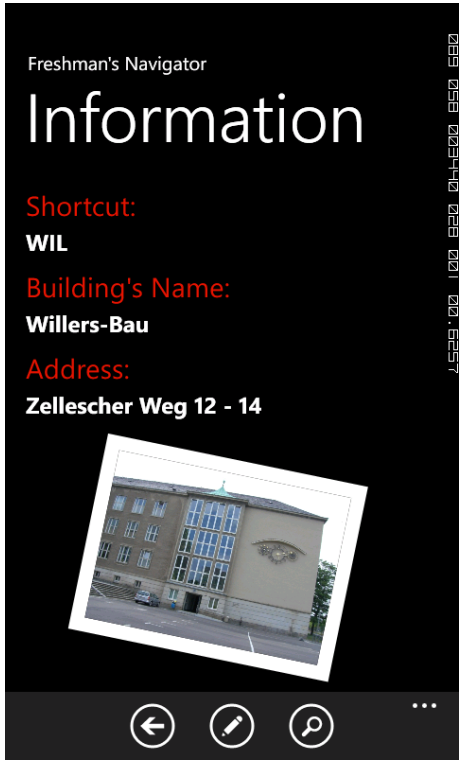
Prototype

- Writes new POI with current position in local database
- ObservableCollection updates view



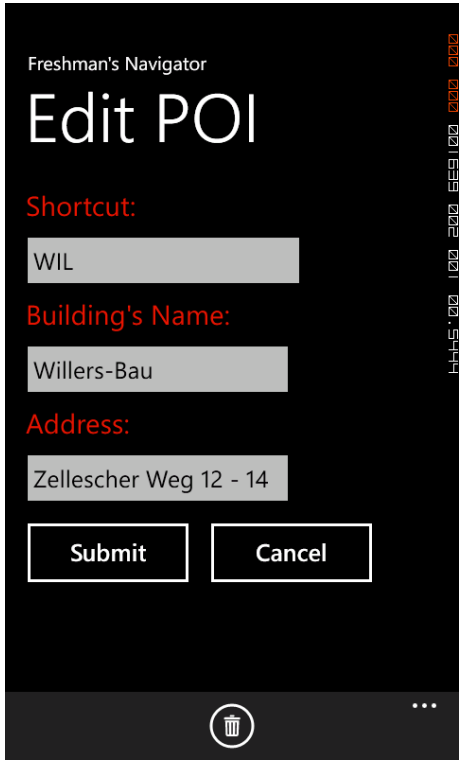
Prototype

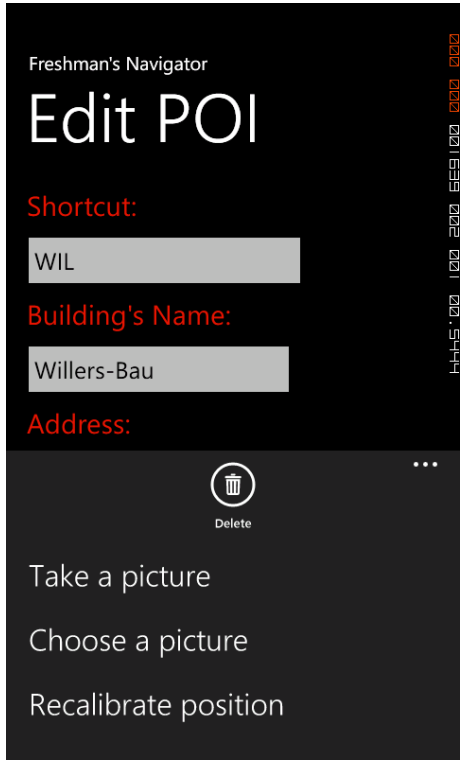
- Reads images of POIs in IsolatedStorageFile
- Portrait- and landscapemode supports different content

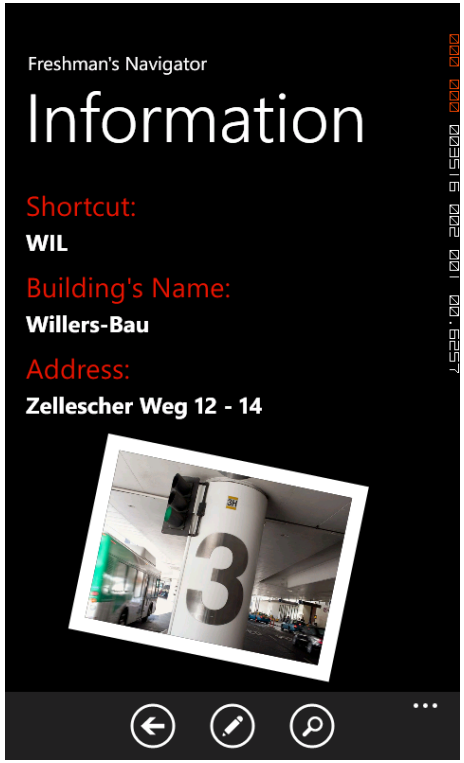


Prototype

- Updates or deletes POI in local storage
- Overwrites image in IsolatedStorageFile for POI

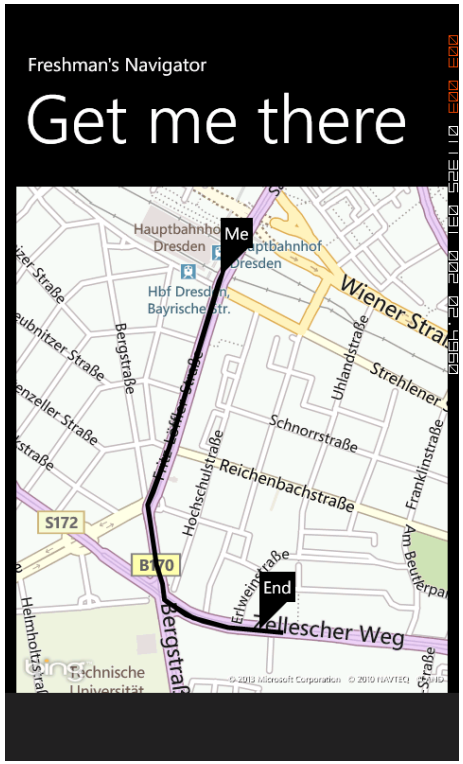




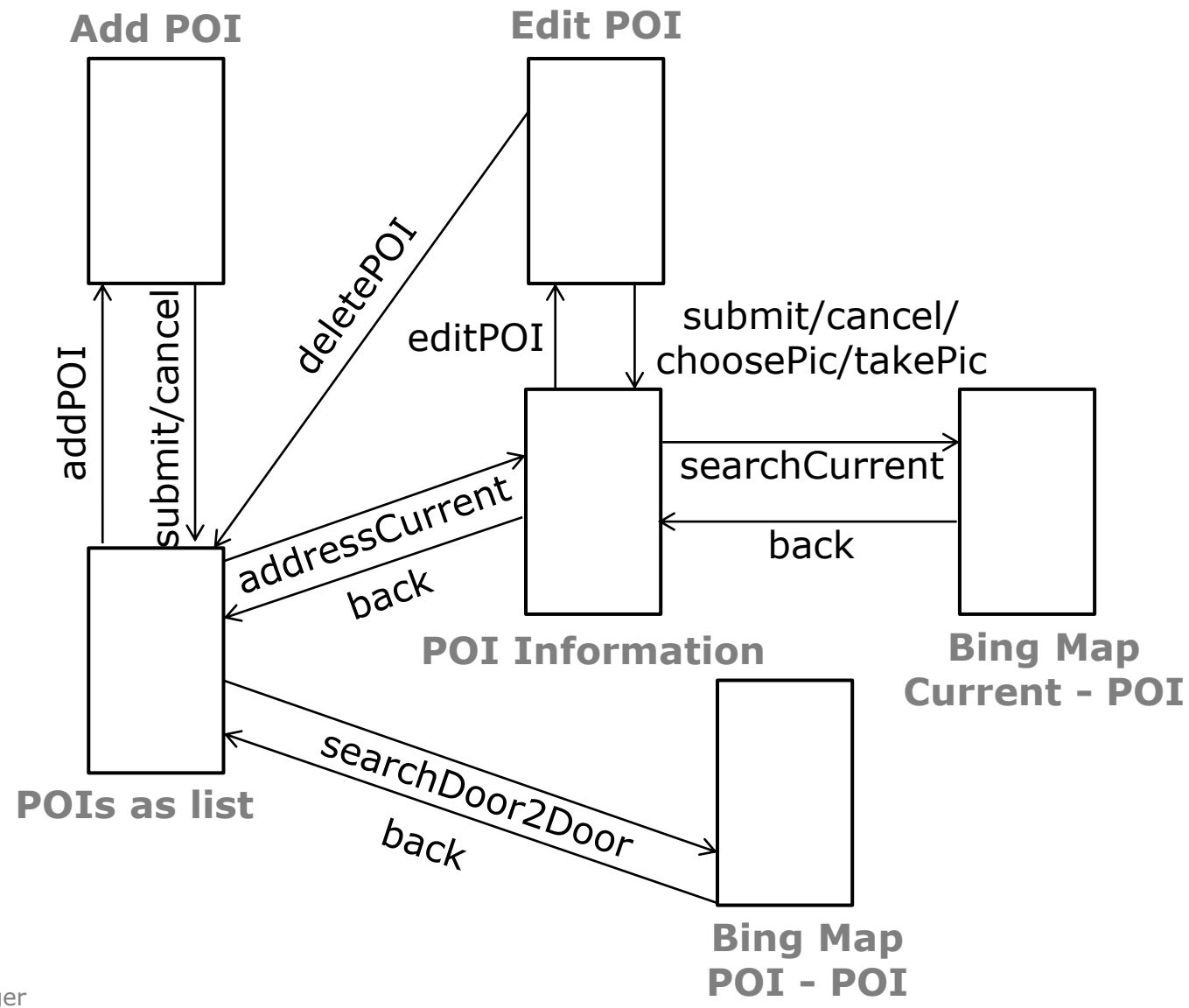


Prototype

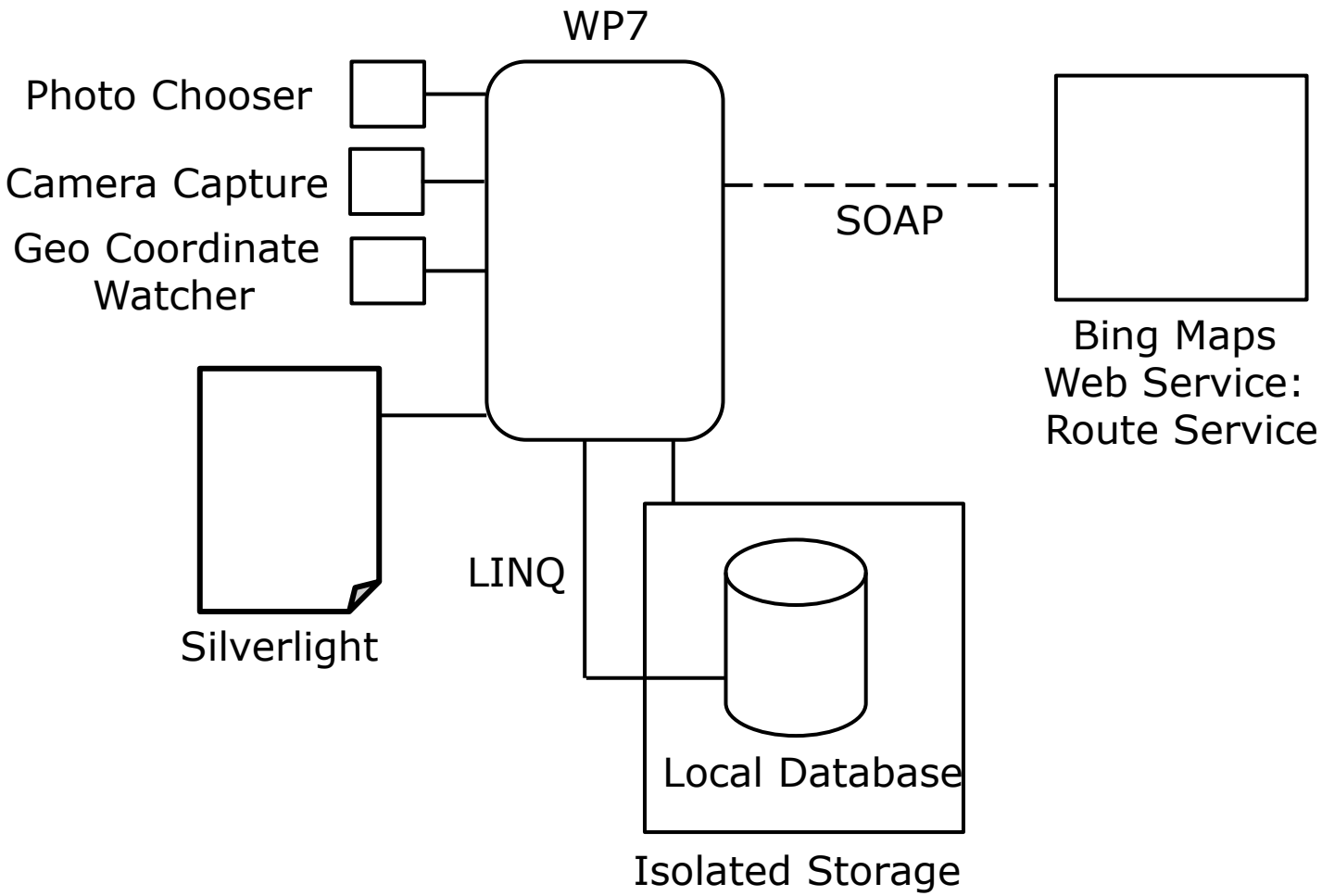
- Supports two search modes: Current position and door2door
- WebService Communication:
  - Locates pushpins on map
  - Calculates route



Application Lifecycle



Architecture



Discussion/Assessment

- Dynamic Computing Environment:
  - Localization of user through GPS
- Resource Restriction:
  - Location-tracking only on map-view
  - WebService maps and routes data
- Usability:
  - Recommendations when searching for POI
  - Thumbnail-preview for POI images

- Pit falls:
  - Small screen size for list of POIs + filter options

- Possible extensions:
  - Add own POI with flexible address
  - Include public transport