

Application Development for Mobile and Ubiquitous Computing
Seminar

LO{O}CKOUT

Second Presentation – Adaptation Concept

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HMMM...WHAT WAS IT ABOUT?

- You are **locked out** of your home
- You need help from a key service nearby
- **lo{o}ckout** will help you to **find a reputable key service** nearby

CONTEXT FEATURES

- Context features used
 - Users location
 - Current time of day
 - Power status

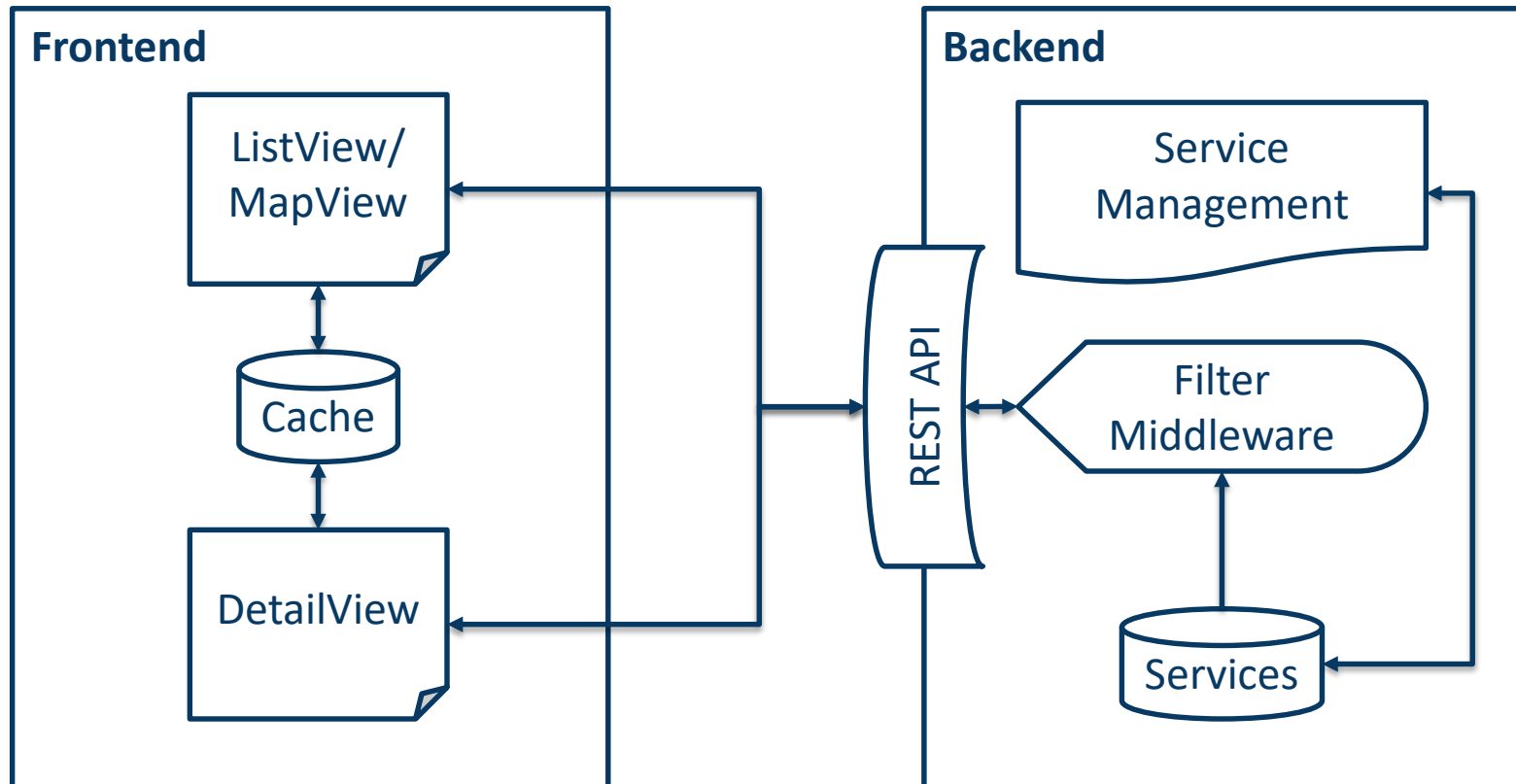
ADAPTATION MECHANISMS (1)

- Users location
 - Filter key service listing by users location
 - Cache (location based) query result for further requests
 - Only if location not available (e.g. indoors): show prompt so the user can manually provide his location by address
- Users time
 - Filter key service listing by current time (only key services currently in service should be displayed to the users)

ADAPTATION MECHANISMS (1)

- Power status
 - Power cord connected: refreshing key services based on current users location
 - Else: disable background refreshes

ARCHITECTURE (1)



ARCHITECTURE (2)

- Backend will be responsible for
 - Filtering key services by users location
- Frontend will be responsible for
 - Filtering key services by users time
 - Caching query results returned by the backend
 - Requesting users address if location services are not available
 - Enabling/Disabling background refreshs based on power status

TECHNOLOGIES

- Frontend: Android SDK, Google Maps API, GPS, SQLite
- Backend: PHP (Laravel Framework) & MySQL
- Communication: JSON

