

# Application Development for Mobile and Ubiquitous Computing

## Seminar Task Adaptation Concept Presentation

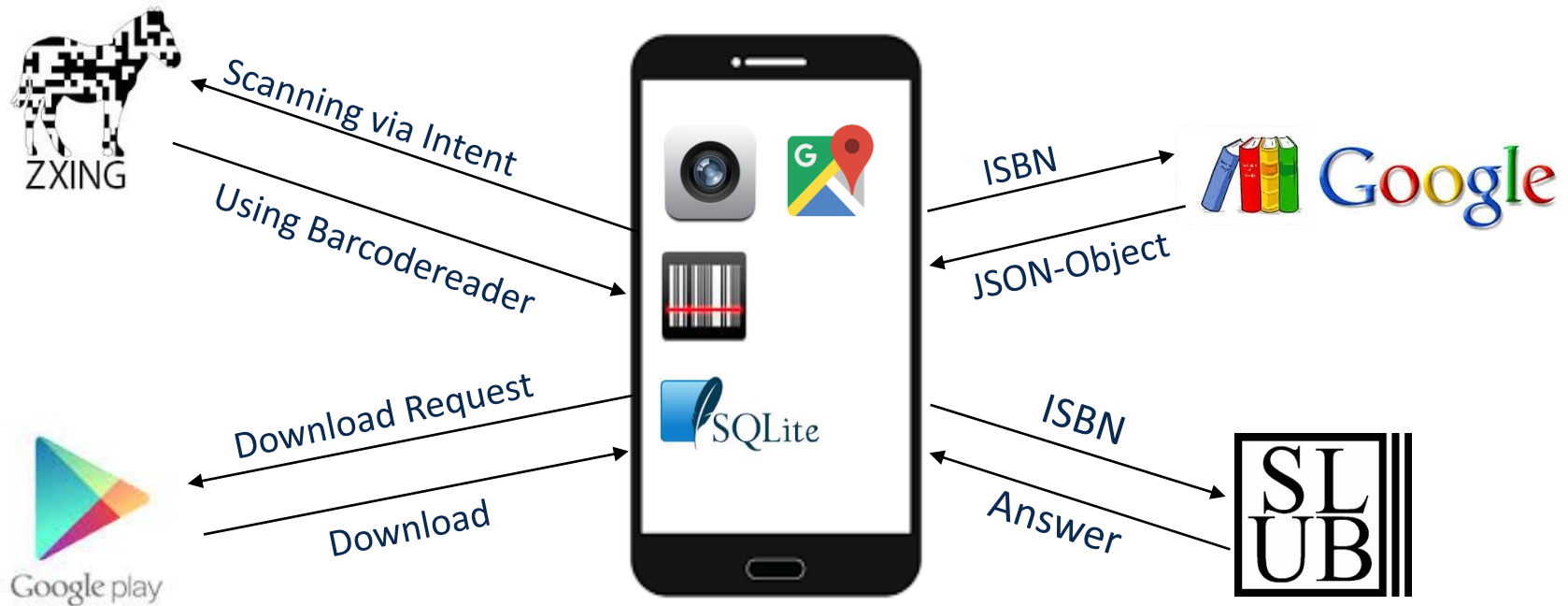
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„SelfShelf“

Dresden, 18.12.2015



- Refined Application Scenario
- Architecture and Technologies
- Challenges
- Adaptation and Context
- Current state
- Work Plan

- Still:
  - get Book information
  - Manage Books
- New:
  - Fewer features
  - Check physical library whether book is lendable → GPS to library



- **Energy & Connectivity Challenge**
  - Reducing amount of data to be transferred via the wireless (loading images when high quality network settings (LTE, Wifi))
  - Energy aware communication / computation
  - multitude of location sources (a matter of trade-offs in accuracy, speed, and battery-efficiency)
- **Usability Challenge**
  - Providing the information properly on android phones
  - Minimizing the user effort to find books
- **Offline Challenge**
  - Adding, deleting books – synchronizing with backend, when back online
  - Resolving conflicts due to concurrent changes

- Conversion
  - reducing amount of information and data
    - accessing only required information (title, author, abstract)
- Filtering
  - canceling not supported data types and formats
    - Exclude non ISBN-barcodes
- Generation
  - creating alternative data
    - HQ image to less quality image
- Caching(temporary)
  - storing book information



SCAN A BOOK

**TITLE:** Shining

**AUTHOR(S):** Stephen King



**PUBLISHED:** 2011-10-27

**DESCRIPTION:** Ein Hotel in den Bergen von Colorado. Jack Torrance, ein verkrachter Intellektueller mit Psycho-Problemen, bekommt den Job als Haumeister, um den er sich beworben hat. Zusammen mit seiner Frau Wendy und seinem Sohn Danny reist er in den letzten Tagen des Herbstes an. Das Hotel "Overlook" ist ein verrufener Ort. Wer sich ihm ausliefert, verfällt ihm, wird zum ausführenden Organ aller bösen Träume und Wünsche, die sich in ihm manifestieren. Mit Shining gelang Stephen King ein moderner Klassiker des Grauens, ein Buch, das die Ängste unserer Zeit erfasst und jeden Leser in seinen emotionalen Grundfesten erschüttert.



- 2 ratings

PREVIEW

WEB

- What is working?
  - Book scanning
  - Request and answer to google books
  - Displaying information
  - Star rating
  - Web view

- To do until 28.01.2016
  - Manual input (maybe reject)
  - Saving and organizing books
  - Enable GPS functionality/SLUB access
  - Merge layout and functions
  - Replace deprecated methodes
- Final presentation: 29.01.2016