

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

## Application Development for Mobile and Ubiquitous Computing Seminar Task First Presentation

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- Application Scenario
- Use cases
- Technologies
- Challenges
- Work plan



- With the developing of international cooperations people should learn more and more foreign languages
- Grammatics is complicated, but....thousands of new words are even more complicated!
- Each person looks for itself own way to learn new words
  - constantly repeat lists of words (always is smth, that is more important)
  - use cards (too lazy to write, to lazy to cary with)
  - read a lot (not enough time for reading)
  - use software (e.g. Abby Lingvo Tutor) (do you always use computer?)



- der Entfall
- Standalone application for learning and improving foreign language skills
- Setting personal preferences
- Adoptation to client resources and connectivity
- Possibility of creation of many "Workspaces" (phone, PC, laptop)



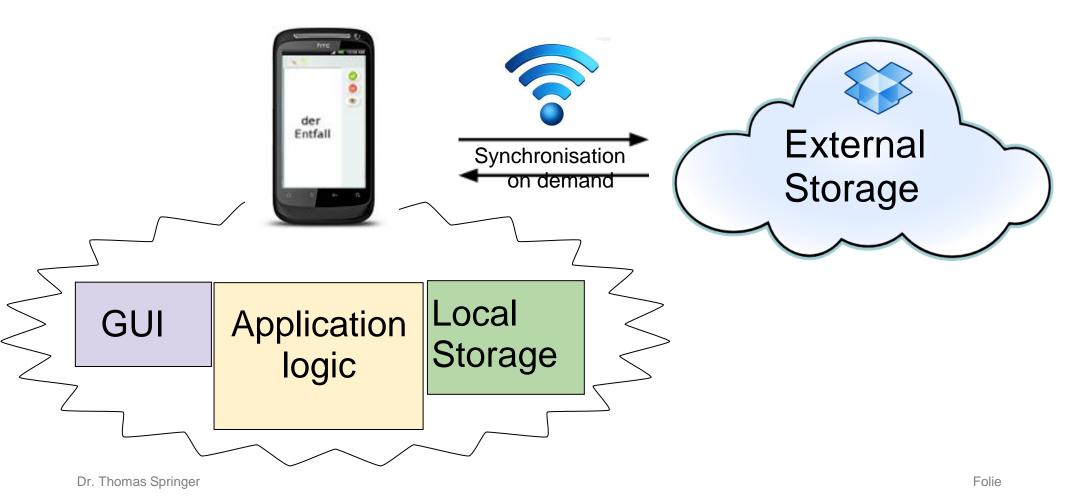
**Use Cases** 

- User should be able to modify settings (period of notification, number of words, etc.)
- User should be able to define custom vocabularies
- User should be able to add new words and phrases (not restricted)
- User shoud have possibility to skip the exercices





- Android SDK
- Java SE
- Dropbox free service, provides easy file sharing
- Wireless Local Area Networks and Wide Area Networks





Challenges

- Device resources:
  - Adopt GUI to small screen of mobile device
  - Optimize usage of processing power
- Connectivity:
  - Provide low dependance on the Internet connection by using local storage for vocabulary and settings
- Synchronization:
  - synchronization of the local storage and external storage for providing possibility to work with severel instances (mobile phone, laptop, PC)



Work plan

- Develop application architecture
- Develop of GUI considering mobile screen's issues
- Synchronization of local storage on mobile device and external storage