

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

Application Development for Mobile and Ubiquitous Computing

Seminar Task

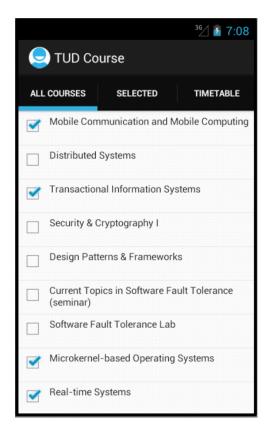
Second Presentation

GroupNo. 3 Team: Mariam Zia Hongjin Zhou



Step 1:

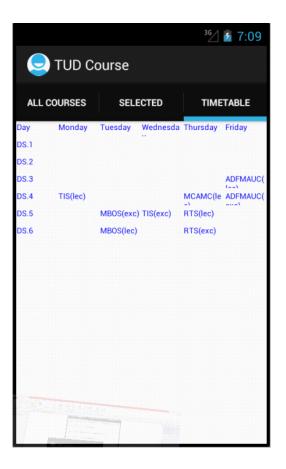
- browse all courses
- tick the courses you will attend





Step 2:

• timetable





Step 3:

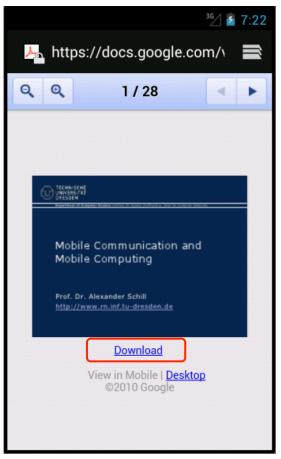
- Update information
- Lecture, exercises and news

¹⁵ 2 📓 7:16		³⁶ / 7:19	³⁶ ⁄⁄/ 🙆 7:21
😑 TUD Course	SourseInfo		Lectures_NW
ALL COURSES SELECTED TIMETABLE	ectures	-	troduction and Principles
Mobile Communication and Mobile Computing (lec: 0 update) (exc: 1 update)	Exercises		GSM, HSCSD, GPRS
Transactional Information Systems (lec: 0 update) (exc: 1 update)	News		UMTS
Microkernel-based Operating Systems (lec: 0 update) (exc: 1 update)			LTE and beyond
Real-time Systems			Wireless LAN
(lec: 0 update) (exc: 1 update)			Satellite and Broadcast Systems
Application Development for Mobile and Ubiquitous Computing (lec: 0 update) (exc: 1 update)			Mobile Internet Protocols
			Web-based Mobile Applications
			Mobile Platforms and Middleware
			Oenteut and Leasting Aussian



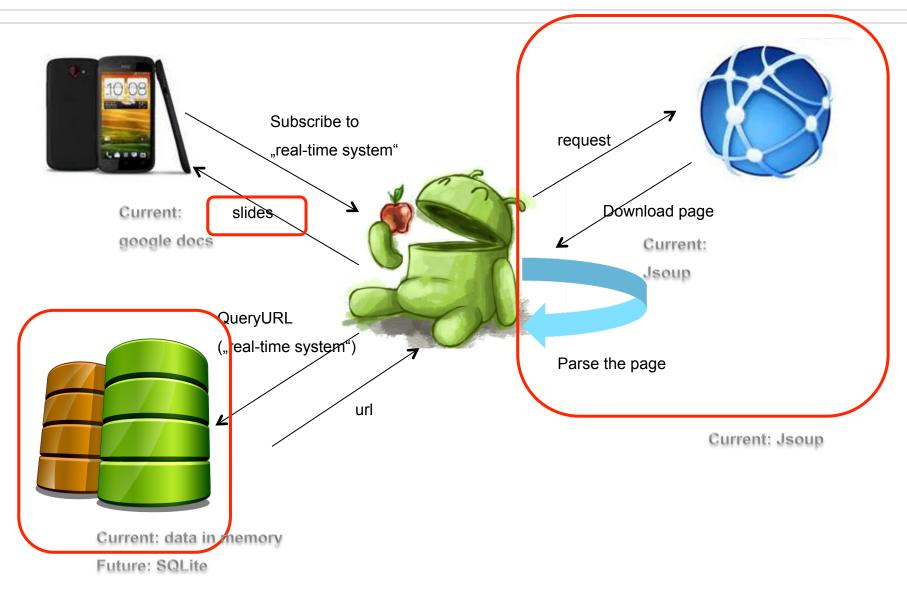
Step 4:

- Open slides via google docs
- Download documents



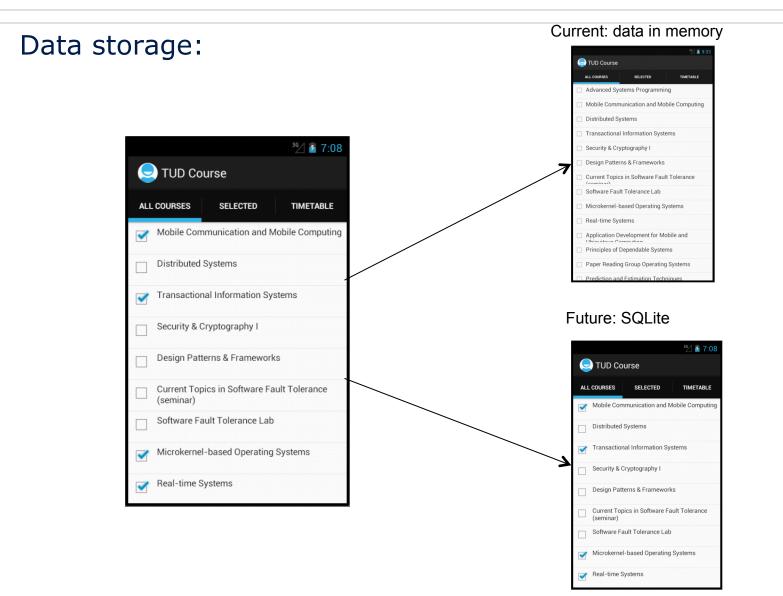


Technologies





Technologies



Application Development - Second Seminar Presentation



Download webpage & parse webpage:

- JSOUP: Java HTML parser
 - o A very convenient API for extracting and manipulating data
 - o Fetches the course page provided by URL and extracts the URLs for lectures and exercises



Opening slides & downloading slides:

- Google docs
 - o Slides Can be viewed as Google docs
 - o Our android application won't depend on any other applications
 - o It gives an option to download files



Problem: update information

- How to implement?
 - o idea:
 - Count_1: query SQLite the number of lecture slides
 - Count_2: parse the course webpage and fetch the number of lec slides
 - If Count_1<Count_2 then update
- Too slow to accept
 - o Download and parse webpages before users really want to browse the slides
 - Each course will slow down the application
 by at least 30s
 - o If a student takes many courses, the application is too slow for him to use



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TIMETABLE



SELECTED

Mobile Communication and Mobile Computing

Transactional Information Systems

Microkernel-based Operating Systems (lec: 0 update) (exc: 1 update)

Application Development for Mobile and

Ubiquitous Computing lec: 0 update) (exc: 1 update)

(lec: 0 update) (exc: 1 update)

(lec: 0 update) (exc: 1 update)

Real-time Systems

📃 TUD Course

ALL COURSES





- Transfer data from memory to SQLite
- Develop update mechanism
- Implement "news"sections
- Improve UI to make it more user friendly