Application Development for Mobile and Ubiquitous Computing

Seminar Task

Second Presentation
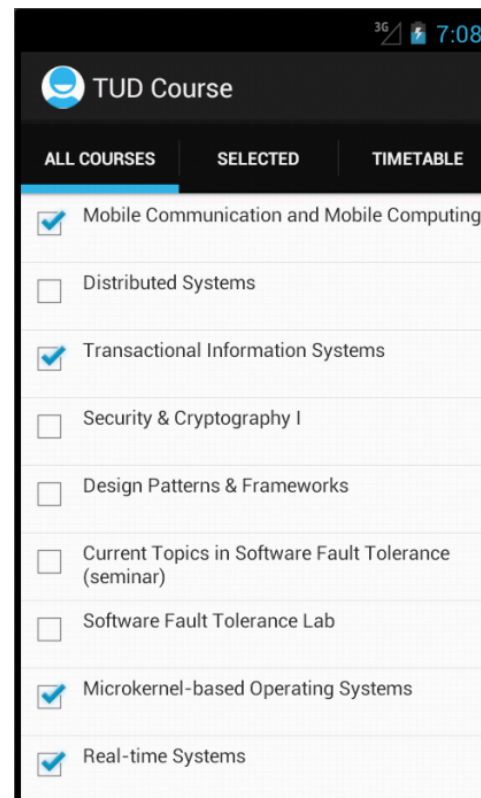
GroupNo. 3
Team: Mariam Zia
Hongjin Zhou

Step 1:

- browse all courses
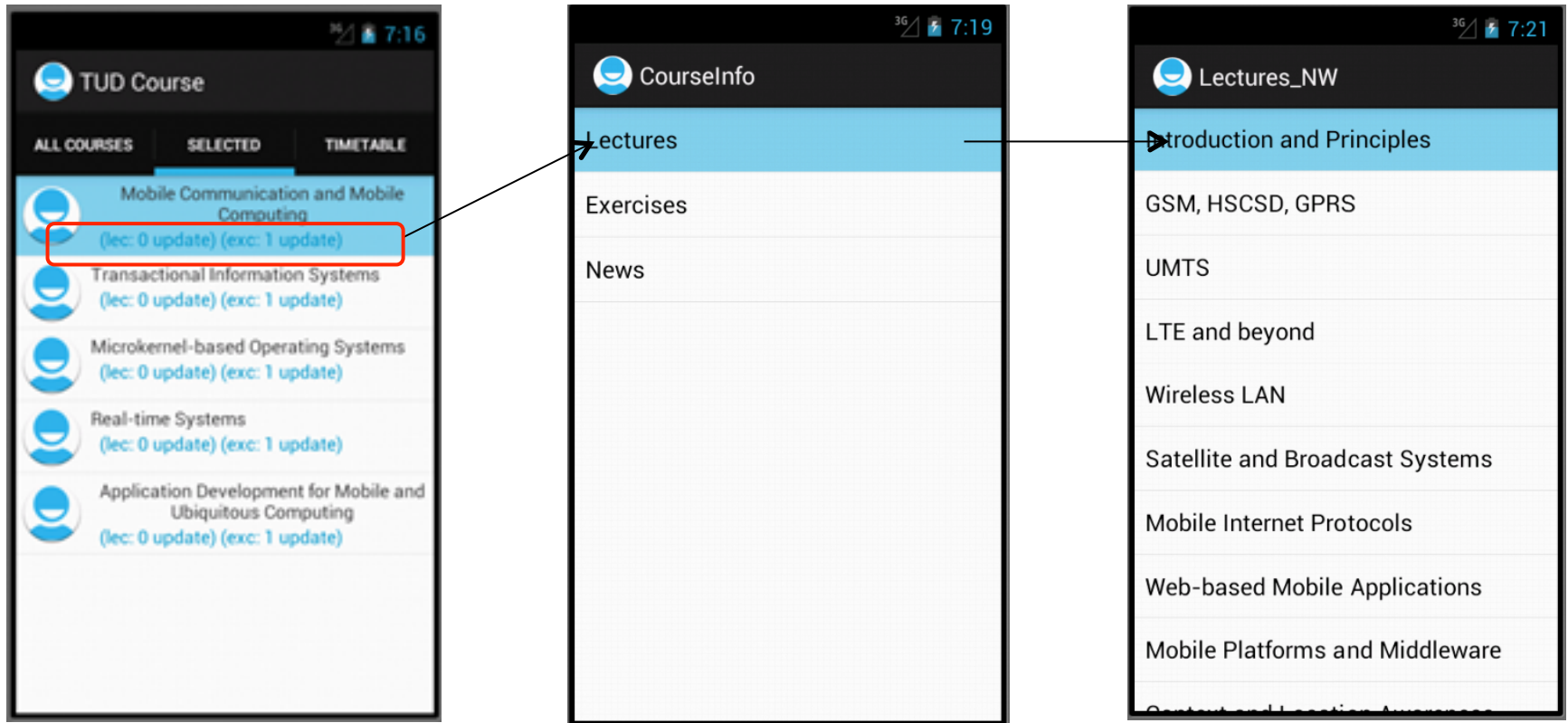- tick the courses you will attend
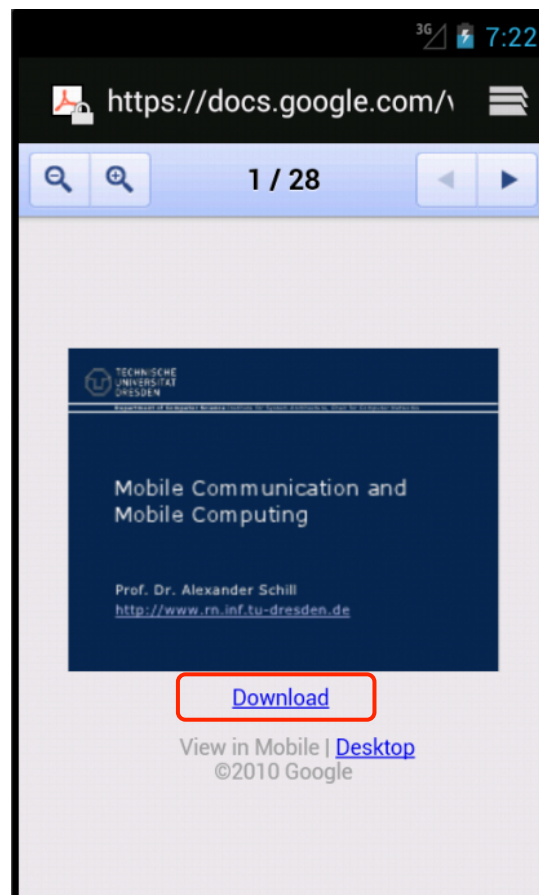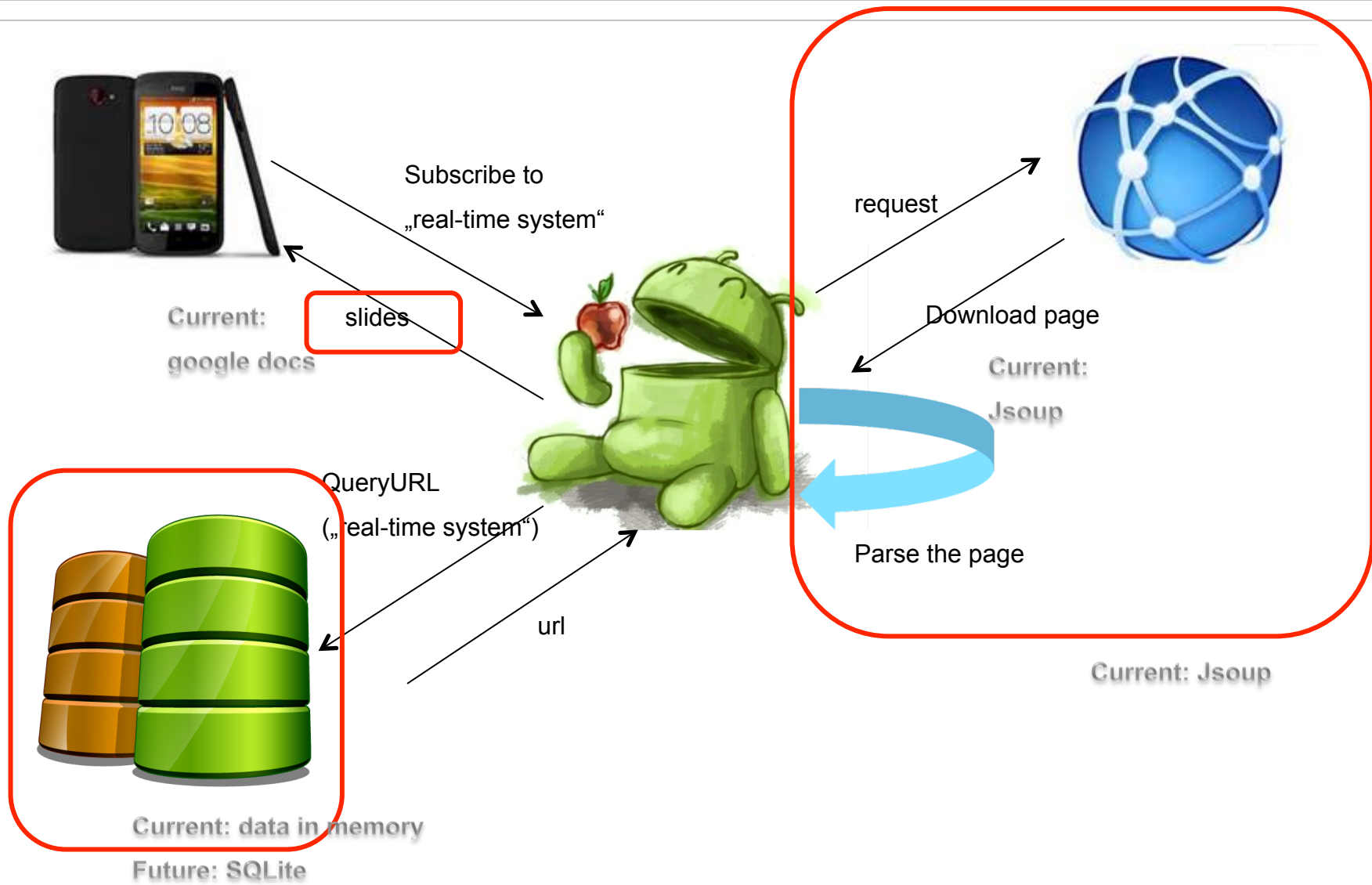
Step 2:

- timetable

Step 3:

- Update information
- Lecture, exercises and news

Step 4:

- Open slides via google docs
- Download documents

Subscribe to
„real-time system"

Current:
google docs

slides

request

Download page

Current:
Jsoup

QueryURL
(„real-time system")

url

Parse the page

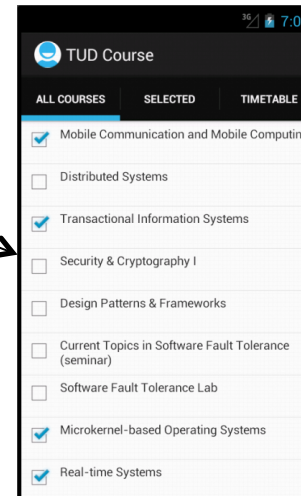Current: data in memory

Future: SQLite

Current: Jsoup

Data storage:

Current: data in memory
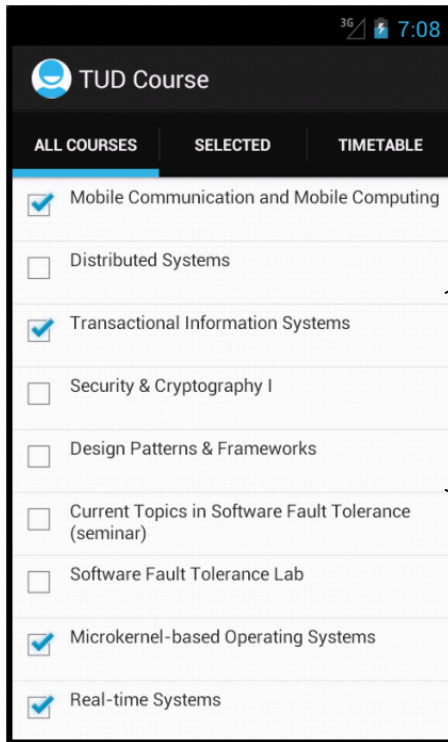

Future: SQLite

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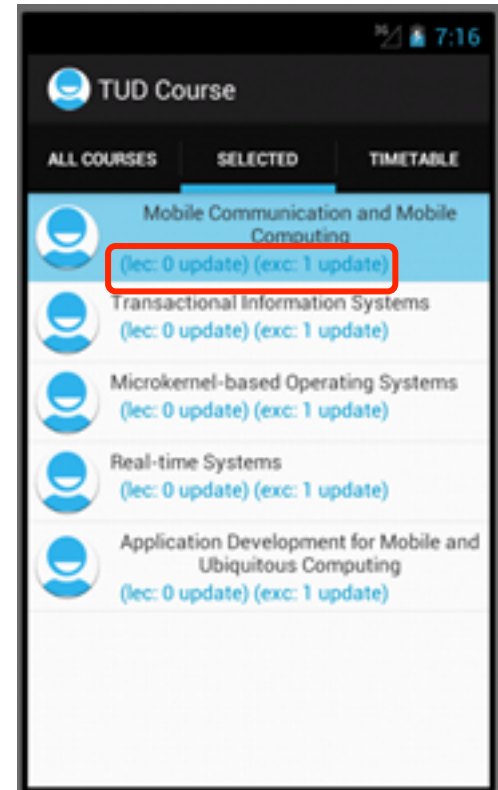
- Transfer data from memory to SQLite
- Develop update mechanism
- Implement „news"sections
- Improve UI to make it more user friendly