Android Labor #8
ALL OF 7

Sebastian Schildt, Björn Gernert
KickOff 23.10.2014
Android Lab

- Learning by Doing

- You are expected to learn about the Mobile Platform by yourself and realize a complete software project from plan to finished App

- Regular meetings

- „Soft-Skills“: Present the results of your project
Advisors:
Sebastian Schildt schildt@ibr.cs.tu-bs.de
Björn Gernert gernert@ibr.cs.tu-bs.de

Responsible:
Prof. Dr.-Ing. Lars Wolf wolf@ibr.cs.tu-bs.de
Mailing List / Website

After today we will set up an mailing list. This will be used for organization purposes and is also open for discussion between participants.

On the website

http://www.ibr.cs.tu-bs.de/courses/ws1415/lnm/index.html

You will find current appointments and other information
### Semester Plan

- **First:** Definition of your project -> 3-Sheet-Paper (3-SP)
- **Then:** Learn, Work, Regular meetings
- **Finally:** Final presentation
3-Sheet-Paper

Defines your project
Contract between contractor (you) und employer (us)

- Project-Title
- Project Team
- Names & Contact
- Motivation, Problem Description
- Place, Date
- Signatures
- Project Team: Android-Lab
- Signature

1. Goals
2. Requirements
3. Approach
4. Project plan with Milestones
5. Possible problems and countermeasures

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3-SP: Goal

How much to promise?

- If you promise to little, you will not get the “job”.

- Do not promise too much: We will also evaluate against the degree of fulfillment of your 3-SP
  - If you can not fulfill a contract, you risk contract penalties...
  - ...unless you build airports in Berlin or belong to the energy or automotive industry...
3-SP: Risks

Needed Effort or Feasibility unclear?

- The section “problems and countermeasures” allows you to point out possible problems preemptively and plan for alternatives
  - “Maybe the current generation of Smartphone is not fast enough to carry out the calculation of Algorithm X in a reasonable time. In this case calculations will be deferred to a backend server”
  - “If company X will not grant access to the needed data, we can compensate this by doing an estimation based on source Y”
„Outer“ Project Management

- Every team chooses a **team leader**. This person is responsible for communication with us.

- Every team uses the first week of the lab to create an 3-SP.

- Every team will manage its source in a Github repository\(^1\) (https://github.com)

\(^1\) If you have a private Github repo, you need to give us (read) access.
Required Attendance

- Regular, weekly meetings for progress reporting
  Every week at least one member of each team needs to be physically present
  → Dates: see webpage

- One required project review in December
  Everybody is required to attend

- At the end of the semester we will have the final presentations
  Everybody is required to attend
How you organize work within your group is up to you! We grade based on results.

Use what you have learned during your studies so far.
Projects - What to Do?

You can define your own project for the term. However, you need to meet these requirements:

- Networking needs to be an integral part of your project
  (for example Multicast WLAN WalkieTalkie or a Game with Multiplayer Support on several devices: Yay! Single Player Game, which allows you to twitter your Highscore: LAME!)
- Not too simple -> We decide

Choose you destiny: Multiplattform!!
Free Choice of OS, as long as it is supported by one of the available Hardware Plattforms
Available Hardware

We provide at least 2 devices per group
With your 3-SP specify which devices you need
We will allocate based on supply, demand & arbitrariness

2012 Nexus 7

Nexus 10

Sony Smartwatch 2

Nexus 5

WRTNode
(Embedded Linux node)

HM-11
Bluetooth LE Module
Groups
Project idea: Babyphone 2.0

Felix needs a Babyphone soon

- 2 Android Devices
- Transmission via Wi-Fi if available, else
  - Wi-Fi Direct
  - Bluetooth (LE?)
- When no broadband channel available, maybe notification via SMS

buesch@ibr.cs.tu-bs.de
**Project idea: Braunschweig Aktionsjahr Medien**

- Entwicklung einer App zum “Aktionsjahr Medien”
- Anlehnung an “Qizduell”
- In Zusammenarbeit mit der Stadt Braunschweig, Fachbereich Kinder, Jugend und Familie

- Wir können Kontakt herstellen
Registering for Exam: Yes/No/How?

This can not be answered easily!
This course can be taken (at least) by Inf, Winf, IST and ITIS students.
It is a M.Sc. course, but you can import it into your B.Sc., depending on your PO.
Depending on your situation you might or might not need to register.

The “official” name for this course is either ”Networking und Multimedia Lab” or ”Mobile Computing Lab”

Course numbers: INF-KM-023, INF-KM-020

CS students can participate
During the exam registration phase you need to register for this course!
As this is a M.Sc. module, only master students can register online.

BSc students can “import” the module into their Bachelor using this form
Or they can already take this module to use it later for their MSc studies:
https://www.tu-braunschweig.de/Medien-DB/fk1/zusatzpruefungen_allgemein.pdf
In this case when applying during the registration week (§ 19 APO), you
need to bring the appropriate filled form.

CS students will be graded.

In case of questions, contact Rebecca Weidner r.weidner@tu-bs.de
WInfo students can participate

Maybe not graded?

In case of questions, pa-wi@tu-braunschweig.de
IST students can participate

IST students can pass or fail (but we give a grade anyway)

In case of questions, maybe annika.wilke@tu-bs.de
ITIS students can participate
In ITIS-Module is called “Networking und Multimedia Lab” and has the number 3071.

http://www.itis-graduateschool.de/web/content/lectures-and-modules?view=all_lectures

During the exam registration phase you need to register for this course.

ITIS students will be graded.

In case of questions, contact Madlen Karasch
Madlen.Karasch@zuv.uni-hannover.de
## Next dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>What</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.10.2014</td>
<td>14:00-</td>
<td>KickOff: Overview and Groups</td>
</tr>
<tr>
<td>29.10.2014</td>
<td>DEADLINE</td>
<td>Deadline, first version of 3-SP to <a href="mailto:mcl@ibr.cs.tu-bs.de">mcl@ibr.cs.tu-bs.de</a></td>
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