

Internet Praktikum TK SS18 (Kickoff)

Lecturers: Christian Meurisch, Sebastian Kauschke

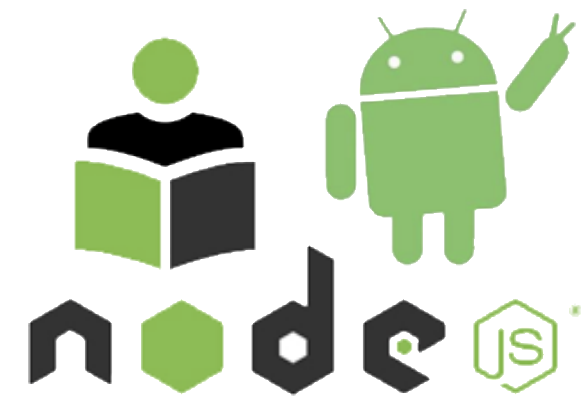


TECHNISCHE
UNIVERSITÄT
DARMSTADT

LECTURERS



GOALS & GENERAL



- Type: P4, 6CPs (20-00-0131-pr)
- Main purpose of the course: Mobile + Backend Development
 - 6 tutorial sessions (optional)
 - Implementation of a project
- Teamwork! ~4-5 students per group
- At the end we expect
 - build-/runnable (.apk), documented code (> 2 days before)
 - technical user documentation (> 10 pages, TUD template, 11pt)
 - final presentation (i.e., 1min pitch/promotion video + live demo)

1CP = 25-30h
6CP = **150-180h**

4-5 students: ~**600 - 800h**

COURSE MODUS

- Previous courses style (< WS15/16)
 - different projects
 - weekly meetings
 - self-studying
- New organization (>= WS15/16)
 - same project for all groups
 - training/tutorial lessons as bootstrap support for implementing the project and to keep all students at the same knowledge level
 - self-studying is still necessary (!)
 - course topics
 - mobile development (Android)
 - web development (HTML, JavaScript, Bootstrap, NodeJS)



COURSE MODUS

- Previous courses style (< WS15/16)
 - different projects
 - weekly meetings
 - self-studying

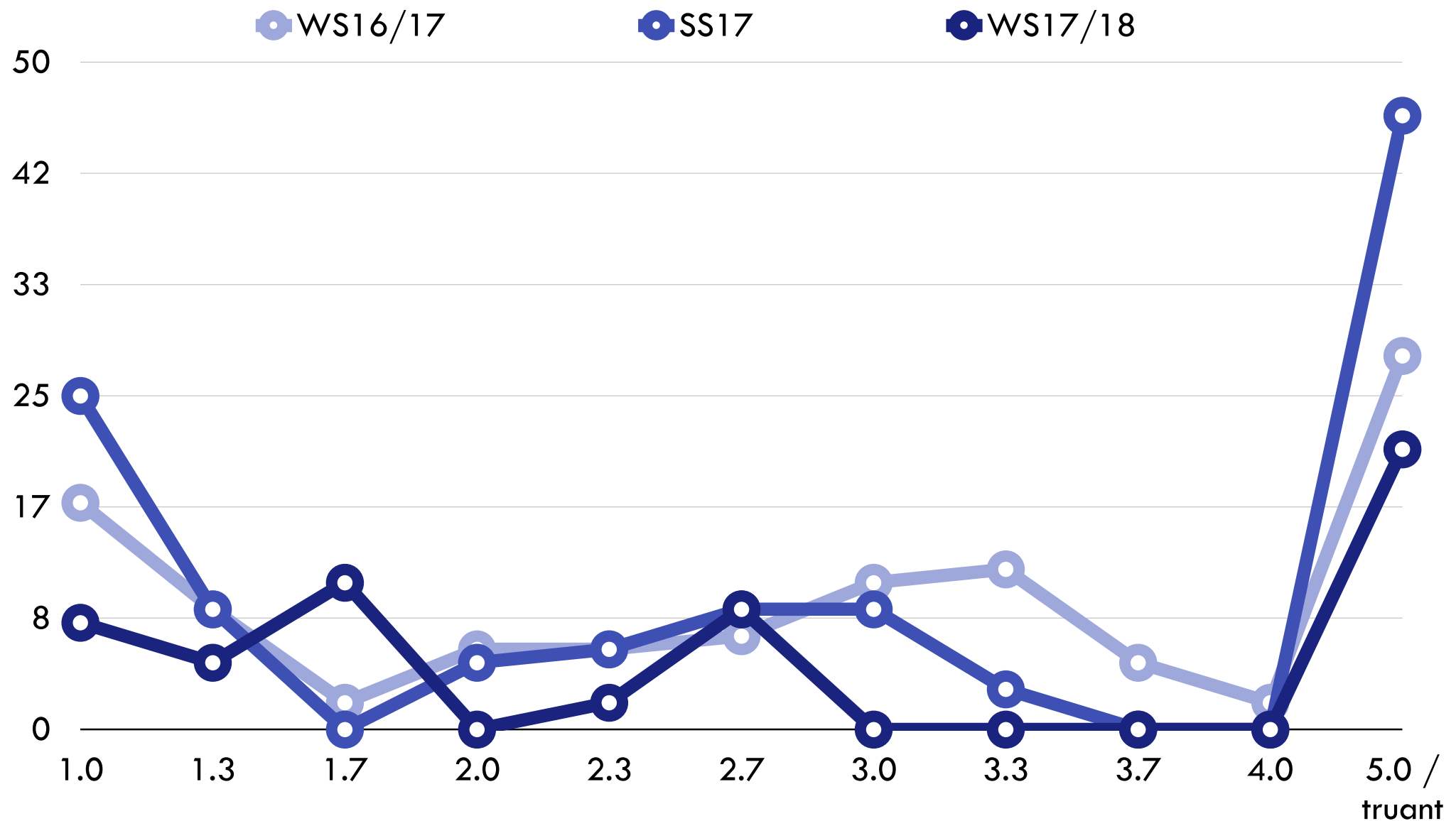


- New organization (\geq WS15/16) Reason?

Number of participants (> 100) vs. number of supervisors (2) 😊
to keep all students at the same knowledge level

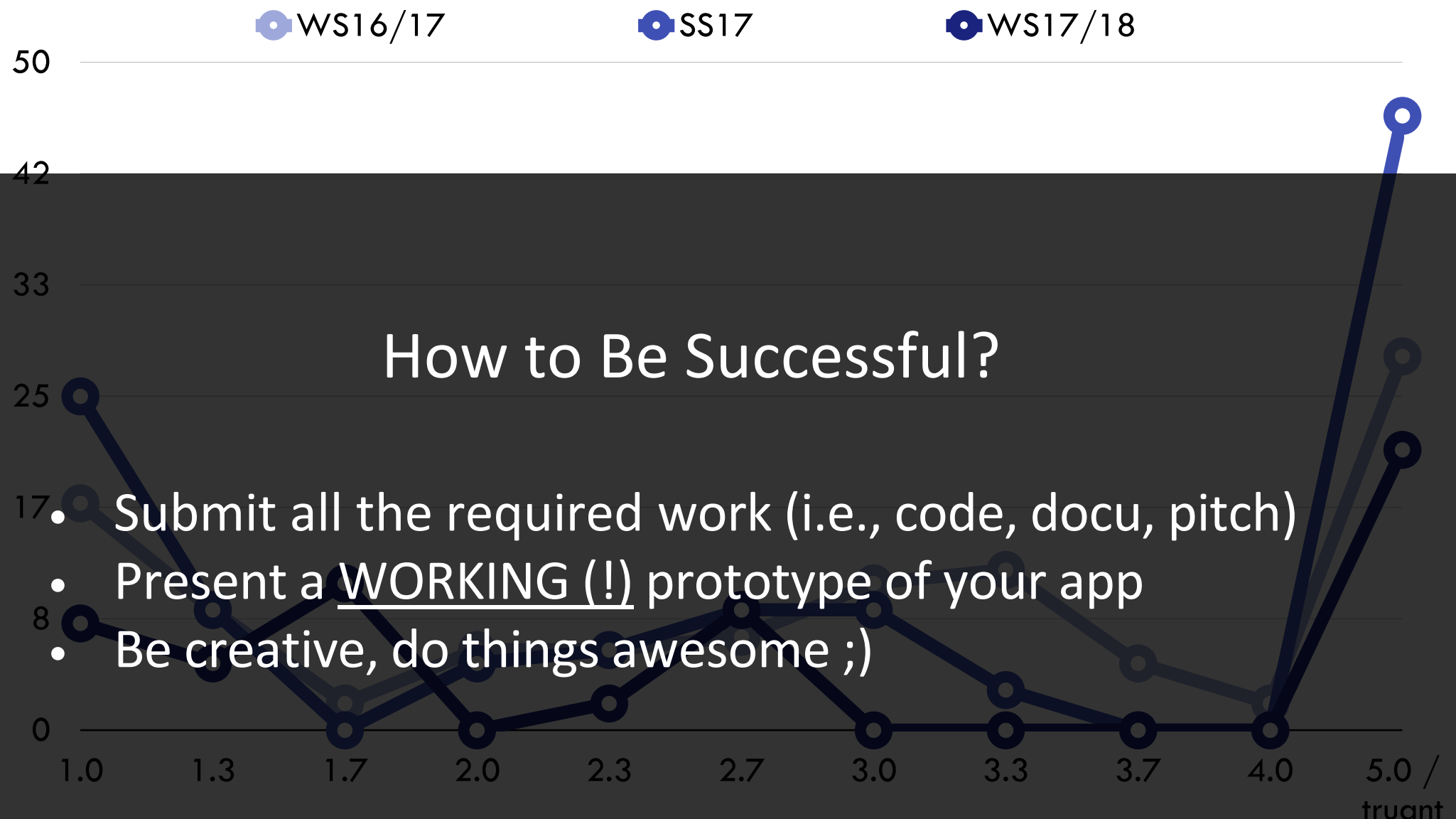
- self-studying is still necessary (!)
- course topics
 - mobile development (Android)
 - web development (HTML, JavaScript, Bootstrap, NodeJS)

LAST SEMESTERS



Average grades
WS16/17: 2.3, SS17: 1.8, WS17/18: 1.8
(without dropout and absentees)

LAST SEMESTERS

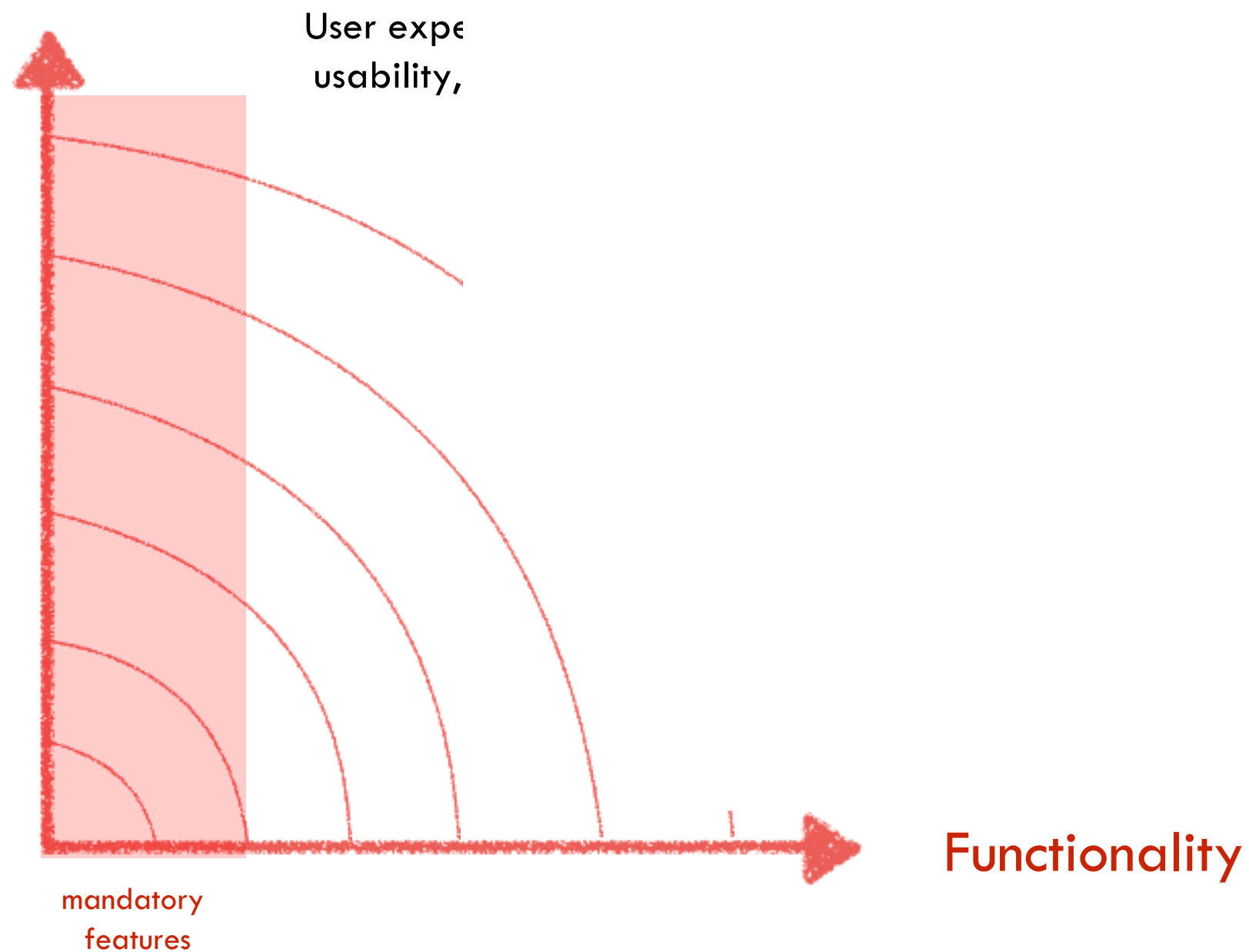


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GRADING

The “Geilness”-Functionality Curves

“Geilness”
(awesomeness)



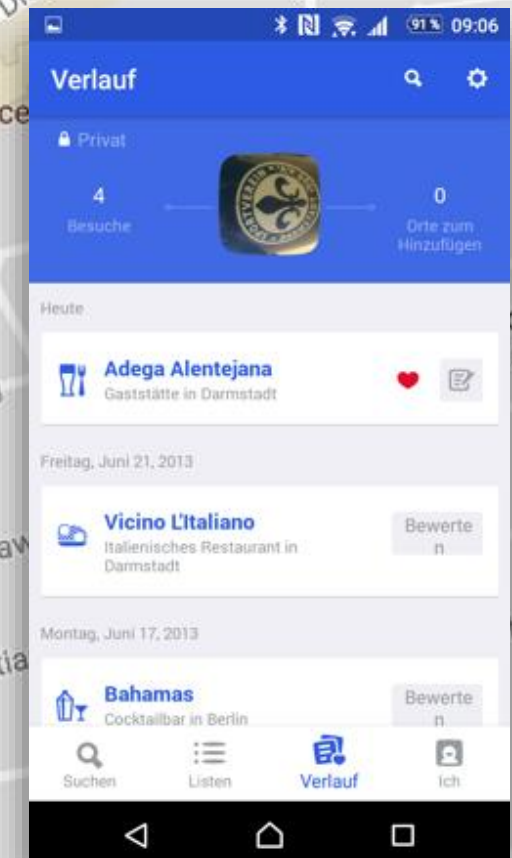
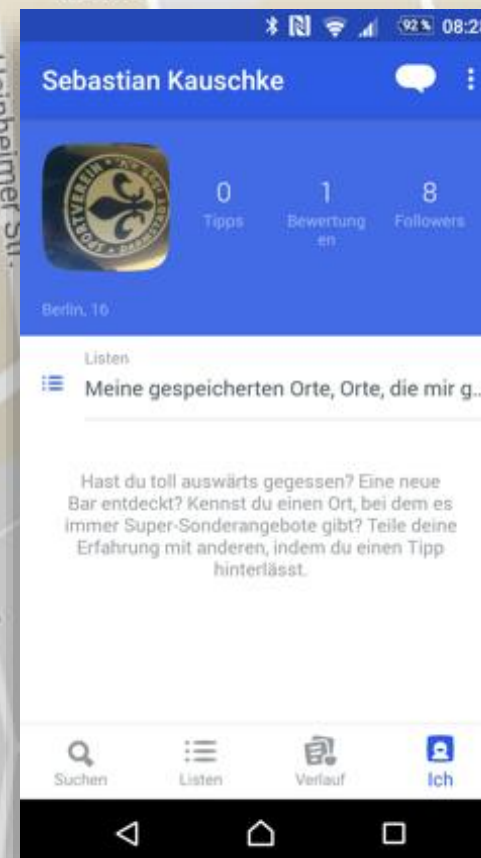
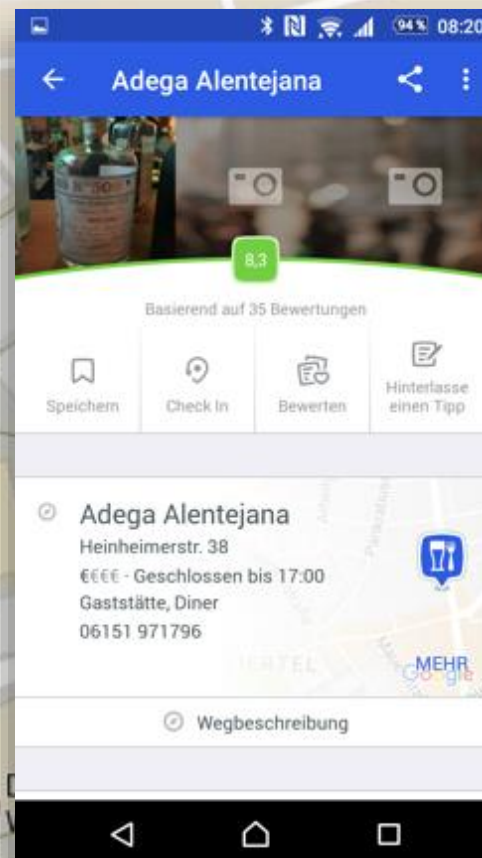


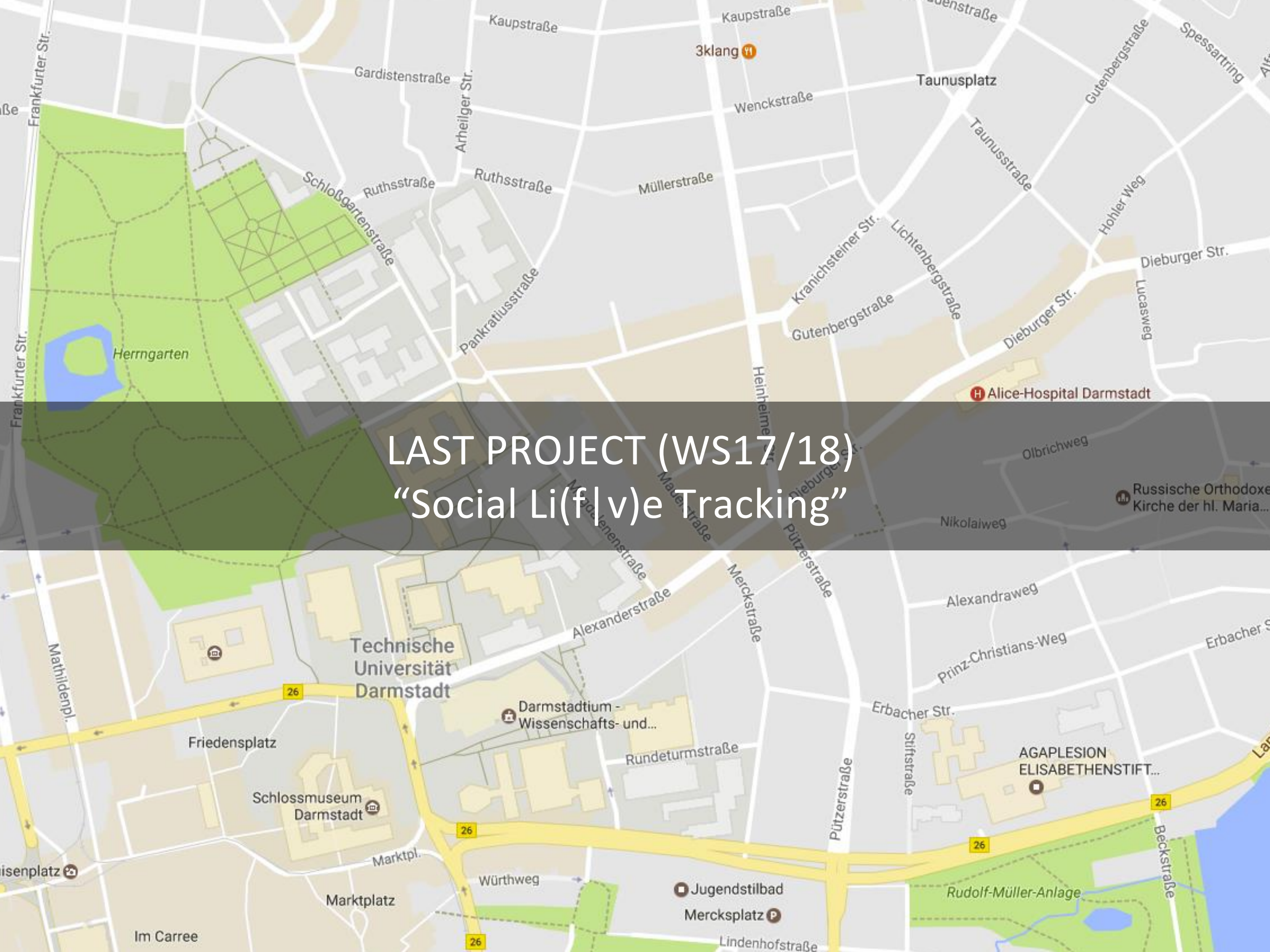
LAST PROJECT (SS17)

“Location-aware Mobile App”

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“Location-aware Mobile App”

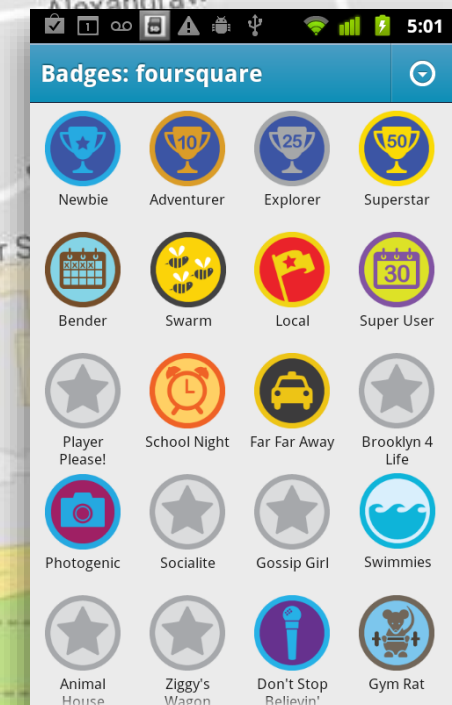
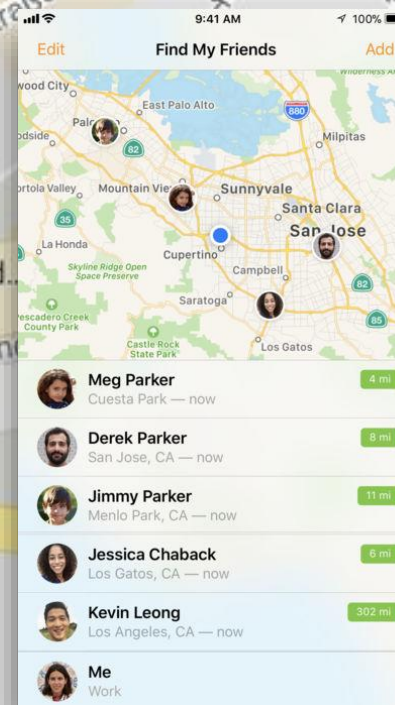
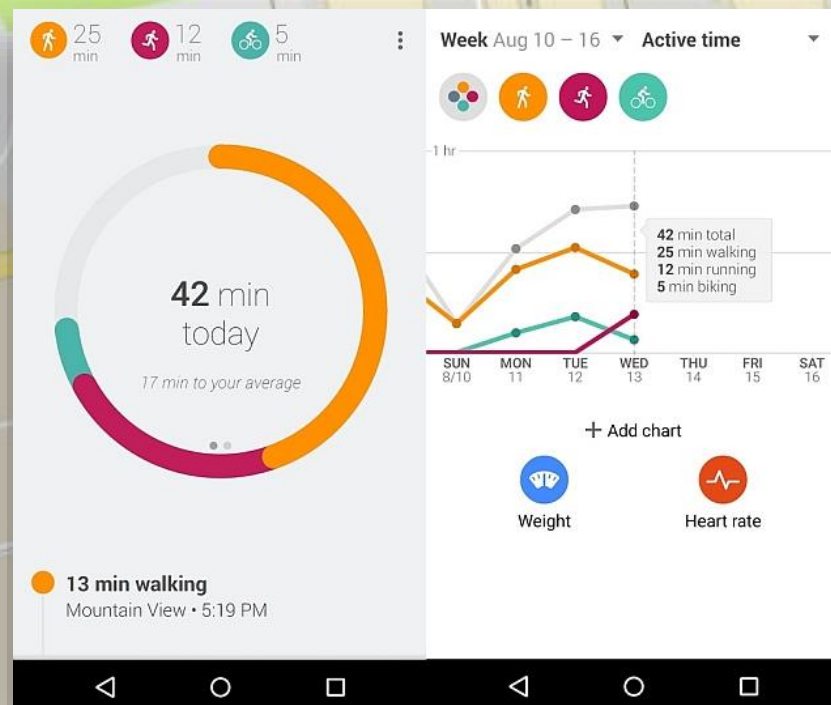
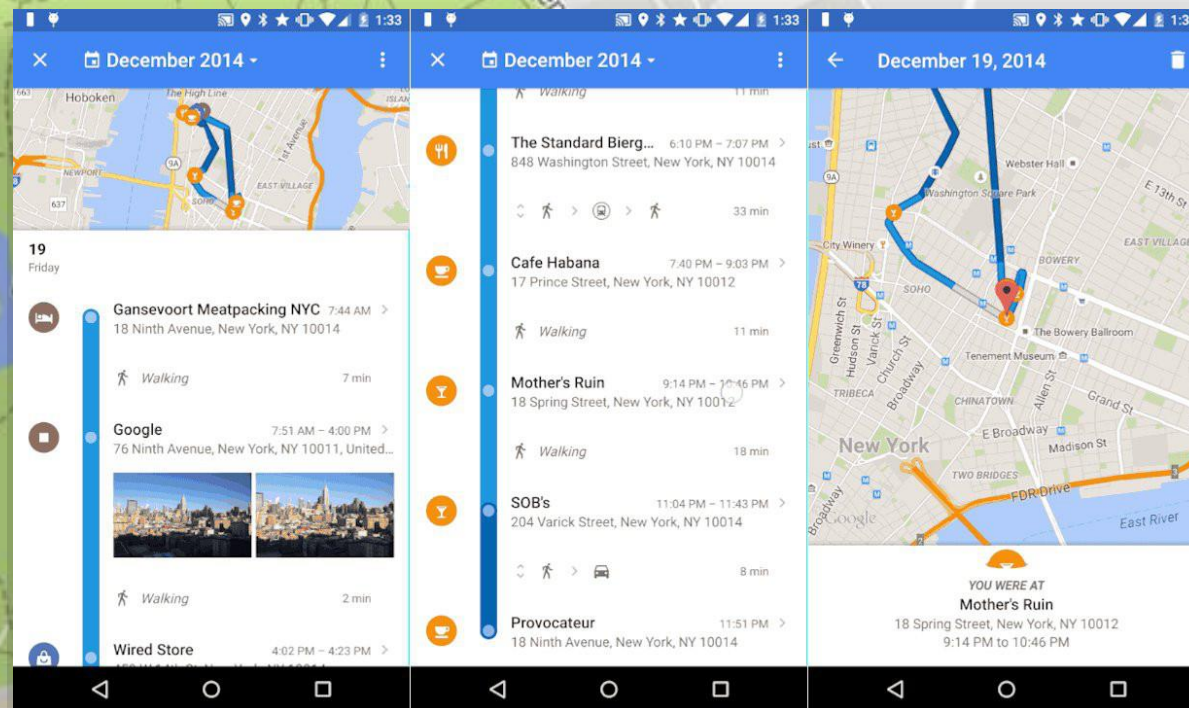




LAST PROJECT (WS17/18) “Social Li(f|v)e Tracking”

LAST PROJECT (WS17/18)

“Social Li(f|v)e Tracking”



THE PROJECT TOPIC
- SS18 -

“Flashmob Music Party”

Silent Music Party



“Flashmob
Music Party”



Silent Music Party

What does it sound like?

“Flashmob
Music Party”

Silent Music Party



“Flashmob
Music Party”

meets

Flashmob



Silent Music Party



“Flashmob
Music Party”

meets

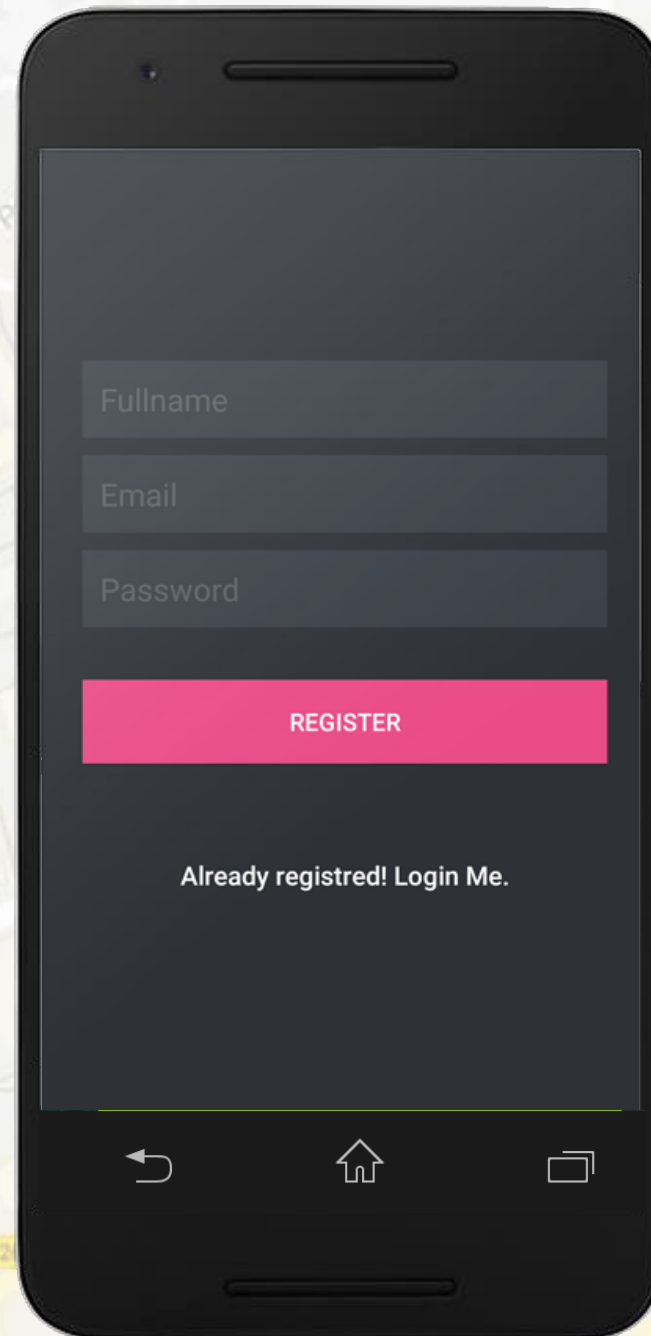
showbiz
tonight

HLN

THE PROJECT (SS18)

“Flashmob Music Party”

USER MANAGEMENT
(login / registration /
profile)



Fullname

Email

Password

REGISTER

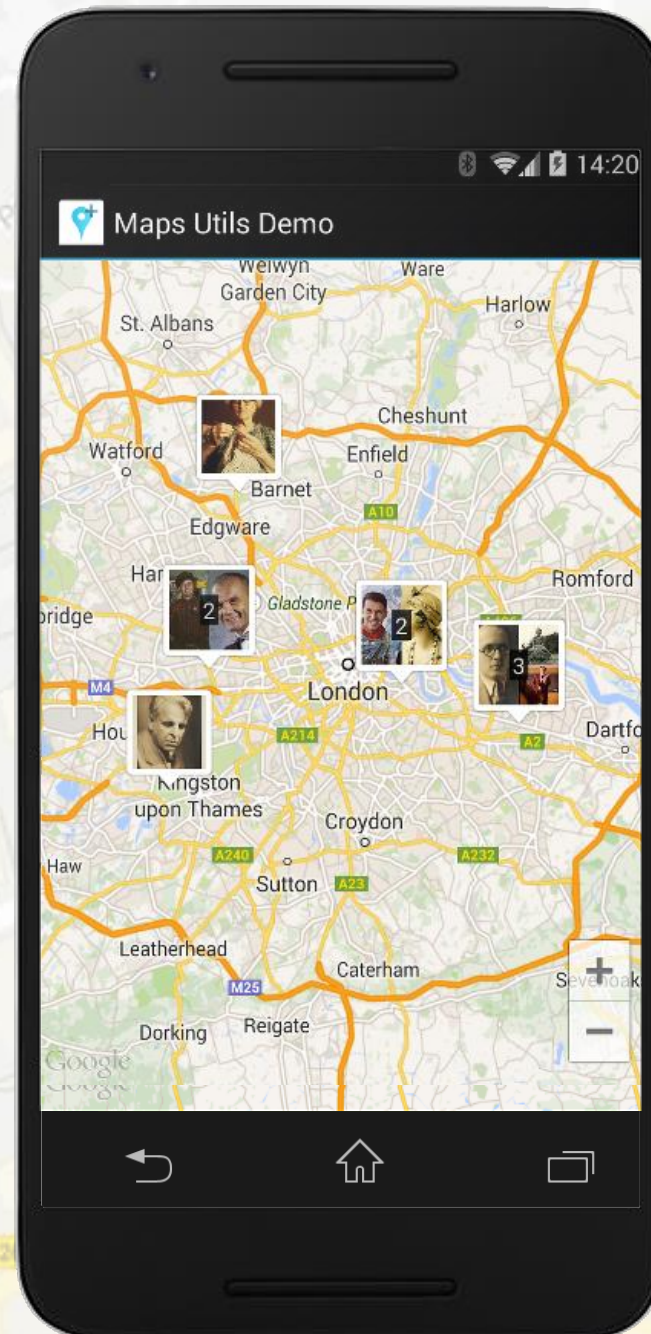
Already registered! Login Me.

THE PROJECT (SS18)

“Flashmob Music Party”

USER MANAGEMENT
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APPOINTMENT
(People / Time / Place*)
*reverse geocoding / map support



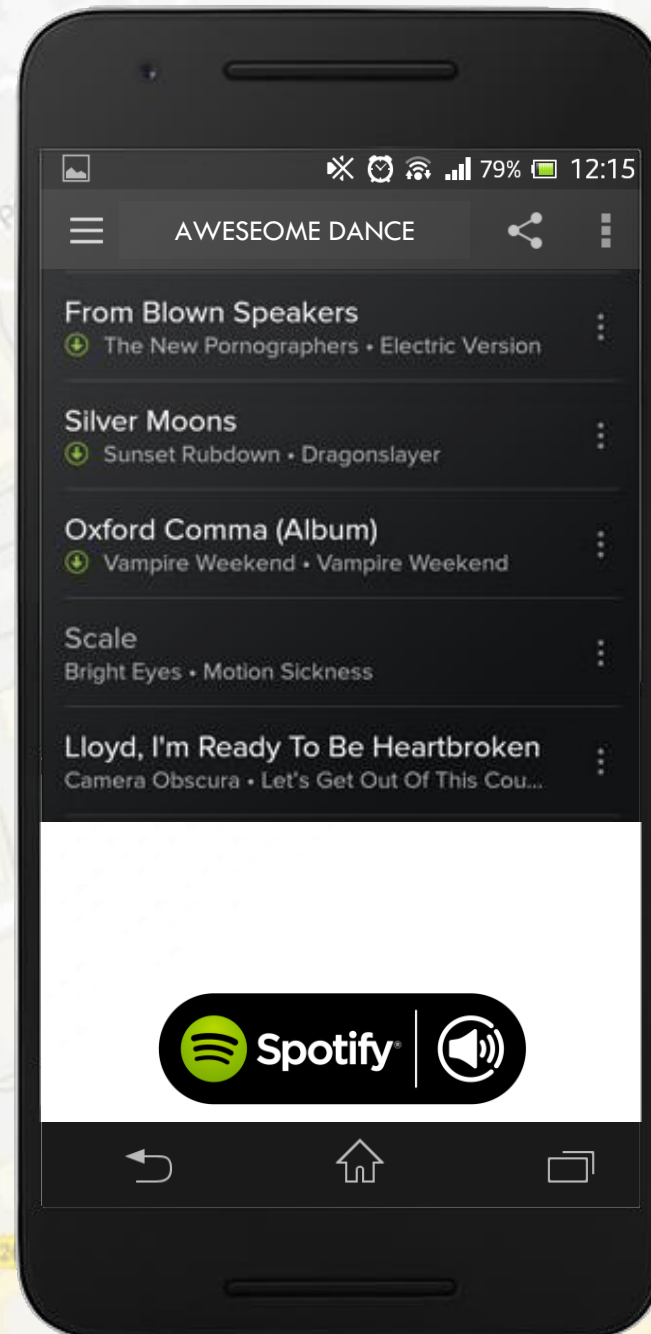
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MUSIC
(synchronized listing
of the same music)



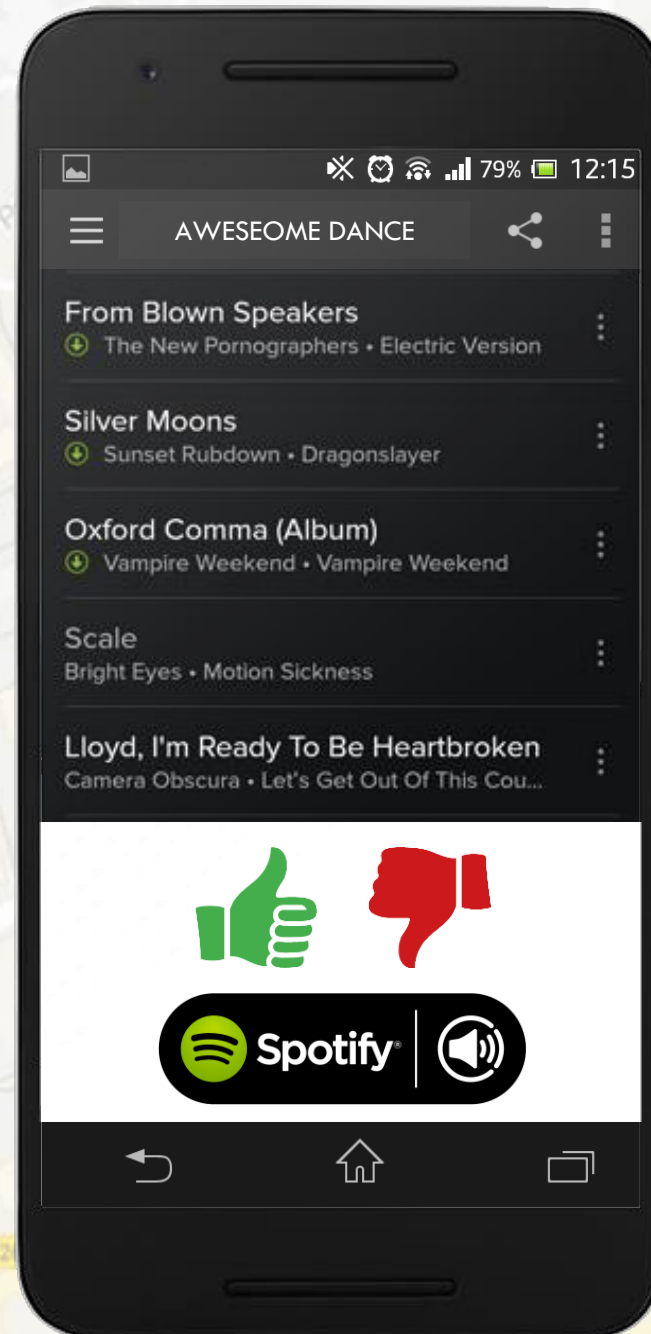
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SOCIAL DJ
(shared playlist + voting
only for “real dancer”*)
*movement/activity detection

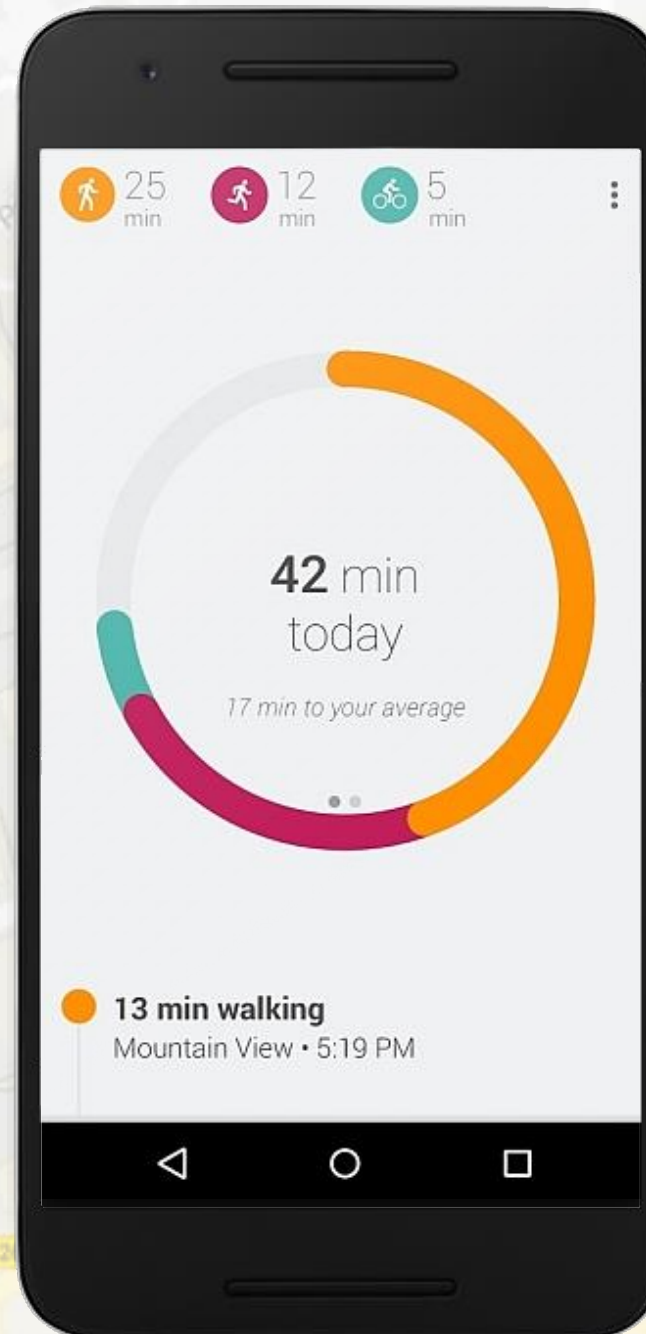
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STATISTICS
(e.g., party history,
dance moves, ..)

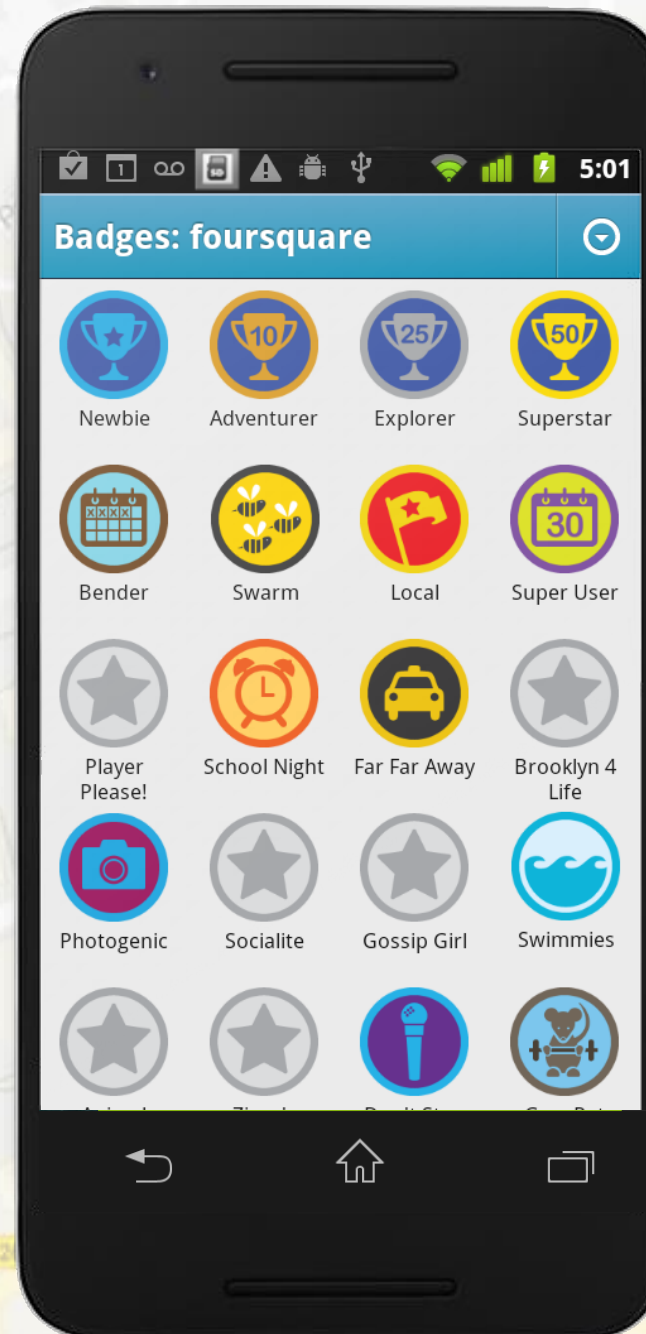
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SOCIAL DJ
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STATISTICS
(e.g., party history,
dance moves, ..)

BONUS
(e.g., Gamification, Flirt-
Chat, Smartwatch app..)

THE PROJECT (SS18)

“Silent Flashmob Music Party”



THE PROJECT (SS18)

“Silent Flashmob Music Party”



Task allocation - Split your team (> 4-5 students) into front-end (Android) and back-end (NodeJS) developers

THE PROJECT (SS18)

“Silent Flashmob Music Party”

More details in the next lecture

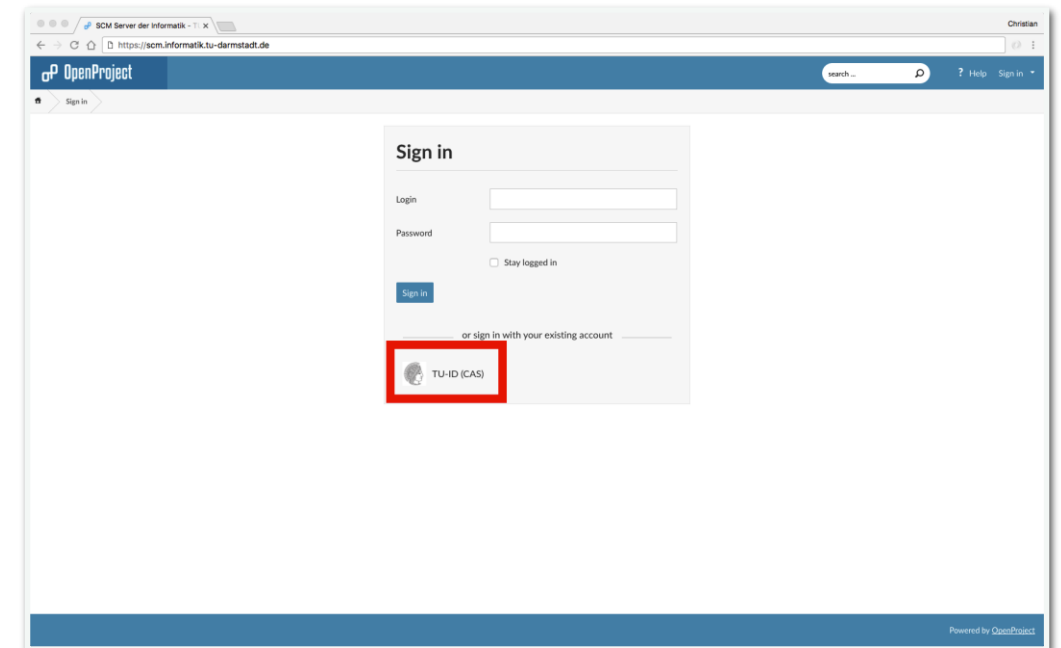


Organizational Issues

COMMUNICATION PLATFORM

OpenProject (<https://scm.informatik.tu-darmstadt.de>)

- Login with your TU-ID is necessary
- An overview of recent activities
- 2 discussion forums
 - [Organizational issues](#)
 - [Technical issues](#)
- A Git repository containing both code examples and slides



Log in to the system as soon as possible so that I can give you rights to view the lecture space and assign you to your group space

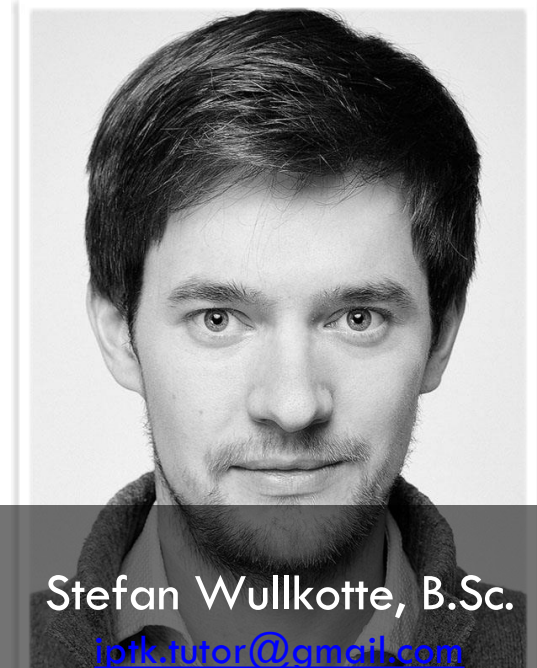
YOUR GROUP WORKSPACE

- Each group has its own workspace including
 - an overview of recent group activities
 - a personal group discussion forum for internal discussions
 - a group wiki
 - a Git repository
- Assignments to groups (next Monday)
 - building groups in advance (~4-5 students)
 - a single person will be assigned to a group

Please use the git repository to merge your code! Each team member should contribute to the project (> git commits).

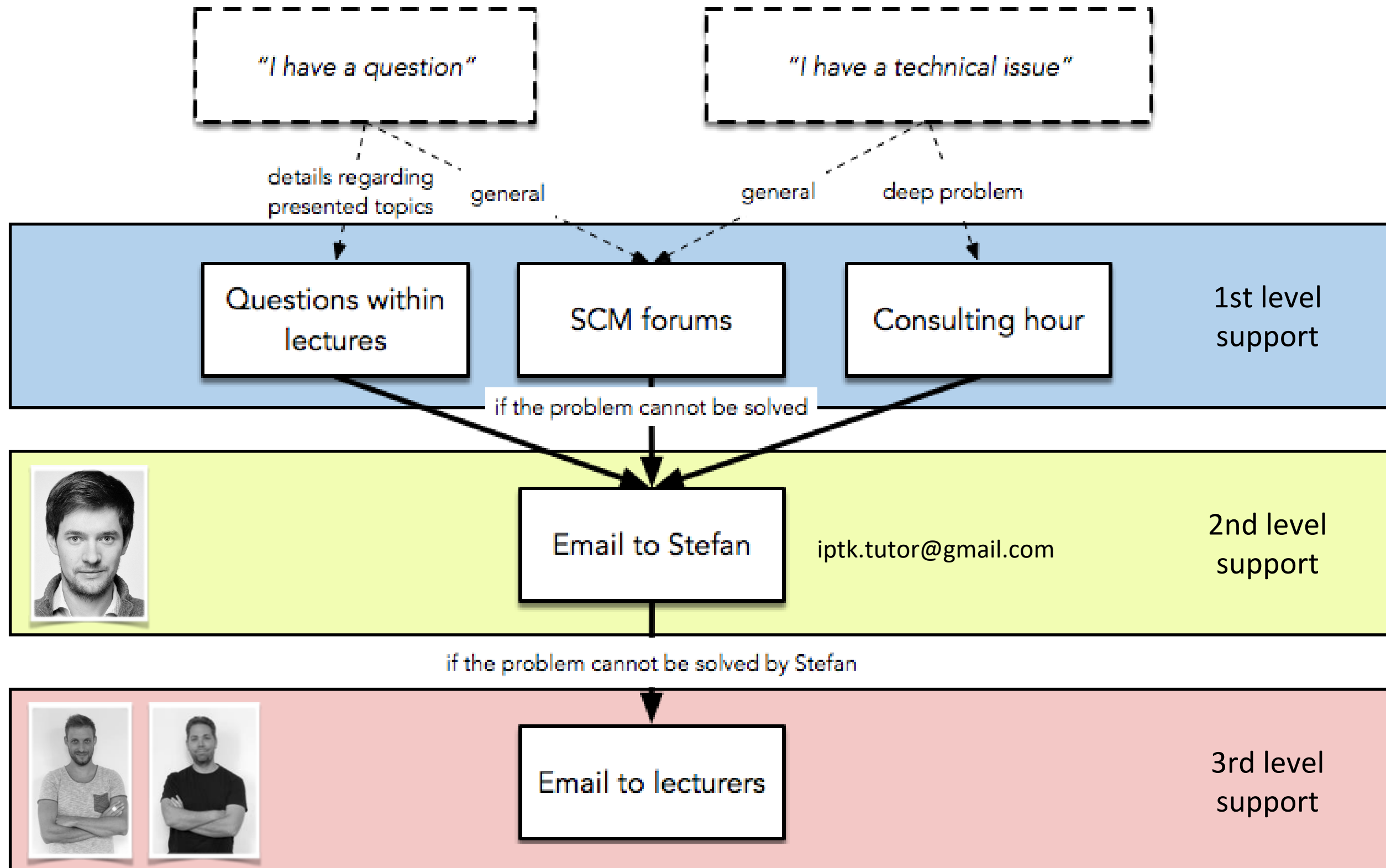
TUTOR

- Regular consulting hours
 - when? - Tuesday 17:15 - 18:15 (starting 29.05.18)
 - where? - S2|02 A313 (see our forum for changes)
- Digital support
 - general questions: SCM forums
 - specific questions: email to Stefan
- General or technical issues: iptk.tutor@gmail.com
- Organizational issues: iptk@tk.tu-darmstadt.de



Please ask *Stefan* first, if you have any technical or understanding issues!

EXTENSIVE SUPPORT

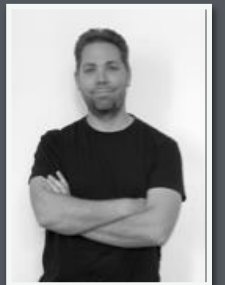


AGENDA (PRELIMINARY)

- ~~Kickoff (Wed, 11.04.18, 17:10-18:50, S2|02 C120)~~
- 6 Tutorial sessions (weekly > Wed, 17:10-18:50, S2|02 C120)



- 18.04.18: Project details, Git, NodeJS basics (npm, grunt)
- 25.04.18: RESTful API, Restify, JWT, Rate Limiting, API Documentation
- 02.05.18: Database (MongoDB), External services



- 09.05.18: Android Studio, Basics (UI), Lifecycle
- 16.05.18: Services, Sensors, Database (GreenDAO) - **Room S101/A4**
- 23.05.18: Remote connections, Data visualization (Google Maps)



- Individual group meetings (Thu, 16.08.18, 13:00-16:00, S2|02 A116)
- Submission deadline (Tue, 18.09.18, 23:59, **mandatory!**)
- Final presentation (Thu, 20.09.18, 13:00-16:00, S2|02 C120, **mandatory!**)

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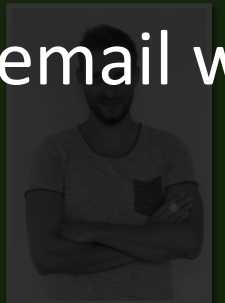
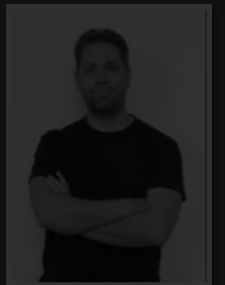
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• 09.05.18: Android Studio, Basics (UI), Lifecycle

• 16.05.18: Backend in Scala (Play Framework) - Project S1 (A1)

• 23.05.18: Project presentation, Data visualization (Google Maps)

Student's choice of topics



Are you interested in one specific Android/Nodejs topic? - Pls send us an email with

your topic proposal and we try to integrate it in our lectures ;)

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YOUR NEXT TASKS

- FILL OUT the registration form (<https://goo.gl/forms/tHsV4rA3eEUltNRO2>) until SUNDAY, 15.04.18 (!)
 - ONE registration per group
 - Team members: name, matriculation number, email, Android phone?
- LOG IN to the OpenProject workspace w/ your university account (at latest by SUNDAY, 15.04.18): <https://scm.informatik.tu-darmstadt.de>



Become familiar with Music Parties or Flashmobs in general (if necessary) 😁



THE END

📧 Thanks for Your Attention!



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