



Software Engineering II

Introduction and Organization

Software Engineering II
WS 2017/18

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Prof. Plattner, Dr. Uflacker
Enterprise Platform and Integration Concepts Group

Agenda

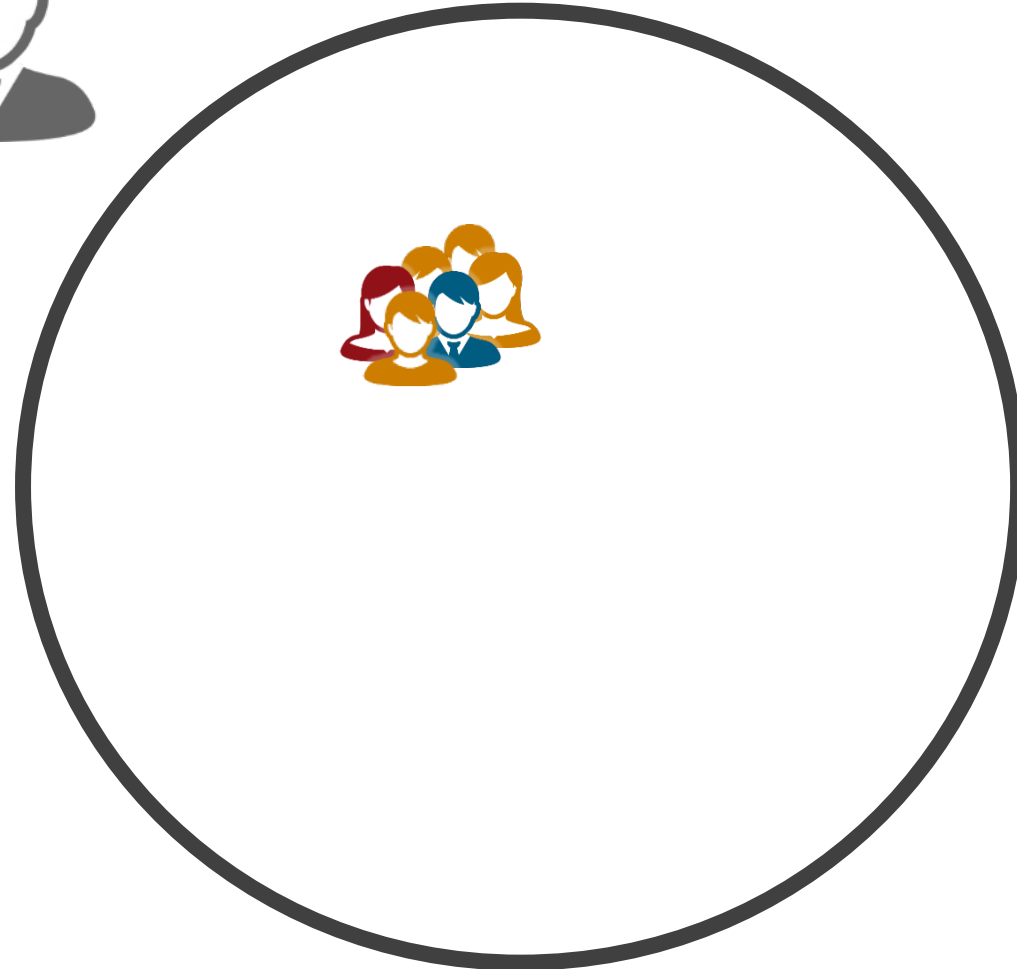


1. High-level Overview of SWT2
2. Organization
3. Project
4. Basic IT Infrastructure
5. Lectures
6. Literature

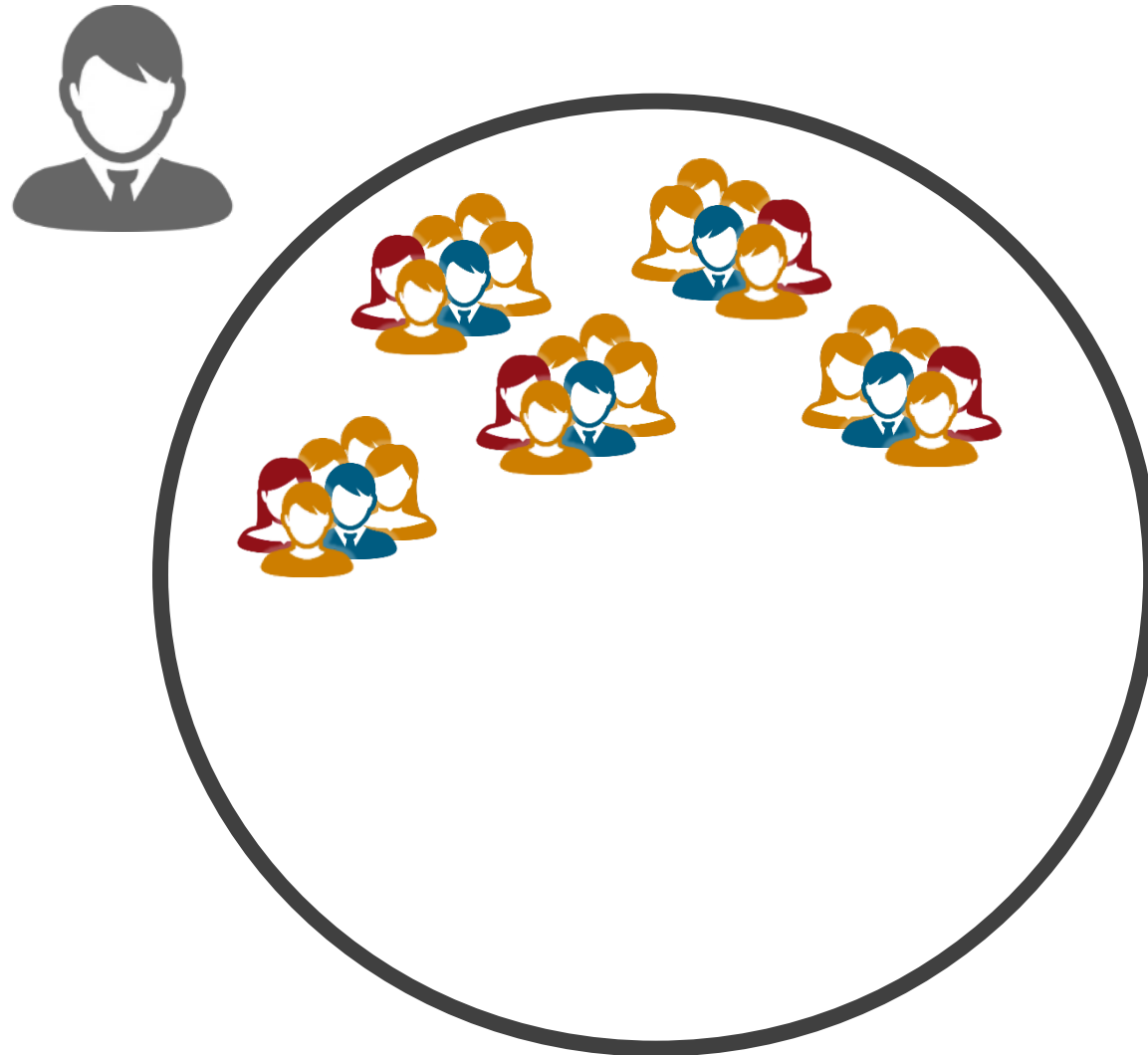
High-level Overview of SWT II



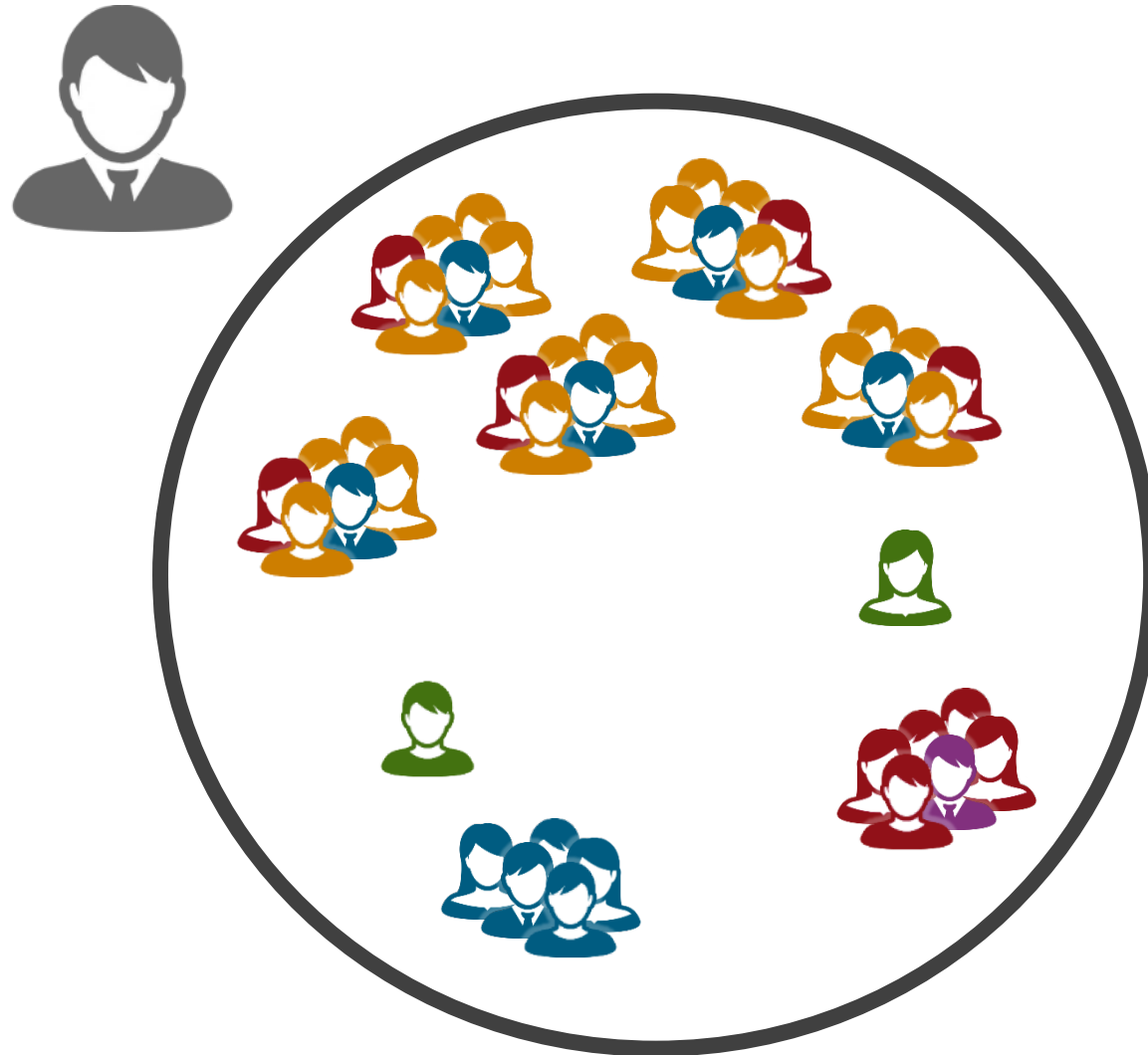
High-level Overview of SWT II



High-level Overview of SWT II



High-level Overview of SWT II



Organization



Prerequisite

- Undergraduate program
- Softwaretechnik I

Class

- 4 SWS (~8h work per week including lectures)
- 6 ECTS credit points (graded)

Modules

- Business Process & Enterprise Technologies
- Operating Systems & Information Systems Technology
- Software Architecture & Modeling Technology

Organization



Important dates

- Enrollment until October 27, 2017
- Preparation exercise starts today
- Project starts November 10, 2017

Lectures

- Friday, 11:00 – 12:30, HS3
- Friday, 13:30 – 15:00, HS3

Web

- <https://hpi.de/plattner/teaching/winter-term-201718/softwaretechnik-ii.html>

Organization



Responsible

- Dr. Matthias Uflacker (matthias.uflacker@hpi.de)



Teaching Team

- Arian Treffer (arian.treffer@hpi.de)
- Christoph Matthies (cristoph.matthies@hpi.de)
- Keven Richly (keven.richly@hpi.de)
- Ralf Teusner (ralf.teusner@hpi.de)



Tutor

- Tobias Dürschmid (tobias.duerschmid@student.hpi.de)

Grading



- Completion of the **introductory exercise** is mandatory
- 30%: **Oral exam** (written exam if #students >> 40)
- 45%: **Usage of presented methods and concepts**
 - Scrum and team work
 - Behavior- and Test-driven development
 - Usage of Source Code Management tools
- 25%: **Software development results (team mark)**
- For grading, POs are considered one team
- To pass the course, you have to pass **each** category.

Learning Targets



Working in Teams



Break down of people into **teams of 7**

Each team

- 1 Product Owner (PO)
- ½ – 1 Scrum Master (SM)
- Several team members

Questions

- Who is not in the 5th semester?
- Who is not an HPI student?

Working in Teams



- Mail your team choice to swt_17_orga@lists.myhpi.de
 - Until **Sunday, October 29**
 - Who will be PO and SM?
 - Three suggestions for weekly meeting

- POs, mail us suggestions for first customer meeting
 - Between October 30 and November 3

Working in Teams



Soon: special teams for special meetings

- Scrum of Scrums (SoS)
- Planning of Planning (PoP)

Addition from the teaching team for each group

- Customer (Ralf, Keven)
- Chief product owner for tough decisions (Arian)
- Tutors as Scrum consultants

Content of the Project



Software engineering assignment

- Programming framework: *Ruby on Rails 5 on Ruby 2*
- Minimal core is provided
- Results will be open source

Focus

- Functionality
- Avoiding “patchwork” (UI, Workflows, Data)
- Maintainability of the Code Base (Tests, Quality, etc.)

So what’s the topic?

Project: Sport Portal



Project: Sport Portal



Build a portal that allows users to manage tournaments and leagues.

The screenshot shows the website 'meinSpielplan.de' with a navigation bar at the top. The main content area is divided into several sections:

- Header:** 'Wer Plan hat ist dabei!' and navigation links: 'Startseite', 'Kontakt', 'Hilfe', 'Meine Übersicht', 'Meine Gruppen', 'Mein Account', and 'Logout (max@muatermann.de)'.
- Left Sidebar:** 'Aktuelle Gruppe: Fussball' with a dropdown menu. Below it are links for 'Spielpläne', 'Mitglieder', and 'Profil'. Further down, 'Aktueller Spielplan: Meine kleine Liga' is shown with a progress indicator 'Liga ist bei 40%' and links for 'Allgemeines', 'Ligatablelle', 'Spieltermine', and 'Veröffentlichen'.
- Main Content:**
 - Ligatablelle:** A table for 'Meine kleine Liga' showing team rankings, matches played, and statistics.
 - Spielpläne:** A list of tournaments with details like name, date, number of teams, and matches played.
- Footer:** 'Impressum | AGB | Banner | Neuigkeiten' and a 'BOOK' button.

Teams	Spiele	Niederl.	Unent.	Siege	Punkte	Gewinner
1 Deutschland	3	0	0	3	8	1
2 Niederlande	4	0	1	3	7	
3 Frankreich	4	1	1	2	5	
4 Italien	4	0	3	1	5	
5 Dänemark	3	0	2	1	4	
6 Griechenland	3	1	1	1	3	
7 England						
8 Spanien						
9 Schweiz						
10 Polen						

Name	Datum	Teams	Matches
HPI TT-Liga SoSe 17	(23. Jul, 12:23)	14 Teams	77 von 77 Matches gespielt
HPI TT-Liga WiSe 16/17	(18. Apr, 19:00)	36 Teams	198 von 198 Matches gespielt
Kickerliga WiSe 2016/17	(14. Feb, 10:52)	18 Teams	88 von 90 Matches gespielt
Kickerliga HPI 2016	(09. Aug, 20:32)	16 Teams	80 von 80 Matches gespielt
HPI TT-Liga SoSe 16	(21. Jul, 14:22)	22 Teams	121 von 121 Matches gespielt
HPI's Liga 2015	(18. Feb, 00:25)	16 Teams	64 von 64 Matches gespielt

IT Infrastructure - Open Source!



Infrastructure

HuBoard
GoogleCalendar

Github
Mailing-Lists
Gemnasium
CodeSchool
Travis-CI
Heroku
CodeClimate

Communication Channels



Mailing List

- swt2_17@lists.myhpi.de
- Important announcements

Calendar

- <https://www.google.com/calendar/embed?src=hpi.swt2%40gmail.com&ctz=Europe/Berlin&mode=AGENDA>
- For all formal meetings

Slack

- <https://swt2-2017.slack.com>
- Team discussions
- Strongly recommended over Facebook, Skype, ...

All links can be found on the web site.
Please sign up until Oct 27!

Lecture supports project

- Rails Intro
- Project Intro
- Scrum and multi-team settings
- Project infrastructure in detail
- BDD & TDD (in Rails)
- Code Review, Tool presentations, Process Improvements
- Deployment
- Guest Lectures (Industry)

Rails Exercise



To get started in Rails...

- 3 weeks for a tutorial exercise

A screenshot of a GitHub repository page. The repository is named 'rails-exercise-17-keven-richly' and is owned by 'hpi-sw2-exercise'. The page shows the repository's metadata, including 12 commits, 1 branch, 0 releases, 1 contributor, and the MIT license. There are buttons for 'Unwatch', 'Star', and 'Fork'. The 'Code' tab is selected, and there are buttons for 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A recent commit by 'derari' is shown at the bottom, titled 'Update .travis.yml'.

SWT2 Schedule



LECTURES

- October 20
- October 27
- November 10
- December 1
- December 15
- January 19
- February 9

PROJECT

- **November 10: Kick-Off**
- Nov 13 – Nov 17: Begin of Sprint 1
- Nov 27 – Dec 1: Begin of Sprint 2
- Dec 11 – Dec 15: Begin of Sprint 3
- **December 15: Intermediate Presentation**
- Jan 15 – Jan 19: Begin of Sprint 4
- Jan 29 – Feb 2: Begin of Kanban Week
- **February 9: Final Presentation**

SWT2 Schedule



Exercise

Kick-Off

Sprint 1 (2 weeks)

Sprint 2 (2 weeks)

Intermediate Presentation

Sprint 3 (3 weeks)

Sprint 4 (2 weeks)

Kanban Week

Final Presentation

Oct	42	16	17	18	19	20	Intro / RoR
	43	23	24	25	26	27	Scrum / Testing / Lego
	44	30	31	1	2	3	
Nov	45	6	7	8	9	10	Kick-Off / Git
	46	13	14	15	16	17	
	47	20	21	22	23	24	
Dec	48	27	28	29	30	1	Reviews / Deployment
	49	4	5	6	7	8	
	50	11	12	13	14	15	Interm. Presentation / Scrum Tips / Guest Lecture
Christmas Break							
Jan	1		2	3	4	5	
	2	8	9	10	11	12	
	3	15	16	17	18	19	Guest Lecture
Feb	4	22	23	24	25	26	
	5	29	30	31	1	2	
	6	5	6	7	8	9	

General literature

- Ruby, S.; Thomas, D.; Hansson D. H.: Agile Web Development with Rails 4, 2013 (ebook)
- Swicegood, T.: Pragmatic Guide to Git (P3.0), 2012 (ebook)
- Rappin, N.: Rails Test Prescriptions, 2012
- Rasmusson, J.: The Agile Samurai (P4.0), 2012 (ebook)
- Pichler, R.: Agile Product Management with Scrum, 2010
- Cohn, M.: Succeeding with Agile, 2012
- Larman, C.; Vodde, B.: Scaling Lean & Agile Development, 2009
- Ludewig, J.; Lichter, H.: Software Engineering, 2006
- Sommerville, I.: Software Engineering, 2004

Ebooks will be made available for chosen books

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Questions?

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