

Next Weeks' Schedule



Week 1 (Oct 17 – Oct 21)

- Introduction lectures

Week 2 (Oct 24 – Oct 28)

- Find teams, enroll!
- Work on exercise
- Lecture on Scrum
 - Exercise after lunch!

Week 3 (Oct 31 – Nov 4)

- POs: Customer meeting
- Work on exercise

Week 4 (Nov 7 – Nov 11)

- Kick-off presentation
- Start of project



Your Project

Software Engineering II
WS 2016/17

Arian Treffer
arian.treffer@hpi.de

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

LECTURES

- October 21
- October 28
- November 11
- December 2
- December 16
- February 10

- Guest lectures tba

PROJECT

- **November 11: Kick-Off**
- Nov 14 – Nov 18: Begin of Sprint 1
- Nov 28 – Dec 2: Begin of Sprint 2
- Dec 12 – Dec 16: Begin of Sprint 3
- **December 16: Intermediate Presentation**
- **Dec 19 – Jan 1: Christmas Break**
- Jan 16 – Jan 29: Begin of Sprint 4
- Jan 30 – Feb 3: Begin of Kanban Week
- **February 10: Final Presentation**

Schedule



- Exact dates should be **negotiated** with your tutor
 - Enter dates and rooms in public calendar
- Sprint reviews and plannings for next sprint can be merged
- PO should roughly know what the team has done **before the review!**
- On demand: User Research with Customer

Let's get started



- POs
 - Meet with the **customer**
 - Extract Requirements + create user stories (Github Tickets)
 - **Prepare** Sprint planning
- Teams
 - Prepare working environment
 - Clone repository, try to get application working, understand architecture, ideally: **play around**
 - Find a regular timeslot for your meetings
- Within the team + tutors
 - Enter into Google Calendar until Nov 6
 - 1st Sprint Planning à CW 46 (09. – 13.11.)



Project Infrastructure

Communication Infrastructure



- Email lists
 - Separate lists for each team (*lists.myhpi.de*)
 - Keep your teammates in the loop
 - Rules and filters help organizing your inbox
- <https://swt2-2016.slack.com>
- Wiki for lean and globally **accessible documentation**
- Ticket system for overview and feedback about current tasks and progress
- Telephone, ~~Skype~~, ~~IRC~~, ... and personal contact for direct communication
- ... be **creative!** (but let us know, we are interested in learning what might be useful in the future)

Time Management



Google Calendar

- Advantages:
 - Available Everywhere
 - Easy Integration with Outlook & iCal
- Overview of team appointments
- Access granted by our tutors

Application Lifecycle Management



The Swiss army knife of software development

- Integrating tools for most common activities in **one place**
- Wiki, Bug Tracking, Time Management, Project Analytics, Discussions, ...
- Examples:
 - MS Team Foundation Server
 - Codebeamer
 - Trac
 - Redmine, Plan.io (SaaS based on Redmine)
 - **Github**

Github Project

■ <https://github.com/hpi-sw22/workshop-portal/>

This repository Search Pull requests Issues Gist

hpi-sw22 / wimi-portal Unwatch 10 Star 0 Fork 0

Description Website

Short description of this repository Website for this repository (optional) Save or Cancel

19 commits 2 branches 0 releases 2 contributors

Branch: master wimi-portal / +

File	Commit Message	Time Ago
app	adding newrelic, erbit supprt; improving views and validation	6 days ago
bin	adding rails 4.2.4 app	14 days ago
config	adding newrelic, erbit supprt; improving views and validation	6 days ago
db	adding has_and_belongs_to_many association and seed data	14 days ago
lib	adding rails 4.2.4 app	14 days ago
public	adding rails 4.2.4 app	14 days ago
spec	adding newrelic, erbit supprt; improving views and validation	6 days ago
test	adding rails 4.2.4 app	14 days ago
vendor/assets	adding rails 4.2.4 app	14 days ago
gitignore	adding tests for controller and factories for auth user, expanding te...	9 days ago

Code

Issues 0

Pull requests 0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

<https://github.cc>

You can clone with HTTPS, SSH, or Subversion

Clone in Desktop

Download ZIP

Scrum in GitHub - waffle.io



■ <https://waffle.io/hpi-sw2/workshop-portal>

A screenshot of a Waffle.io Kanban board for the project 'hpi-sw2/event-und-raumplanung'. The board is divided into four columns: Backlog (0 items), Ready (0 items), In Progress (1 item), and Done (3 items). The 'In Progress' column contains one card titled 'Applikationsrumpf anlegen' with a 'Preface' label. The 'Done' column contains three cards: 'Unnötig' (with 'Preface', 'pull-request-5', and 'review.ninja' labels), 'Infrastruktur zusammenklicken' (with 'Preface' label), and 'Example pull request for review.ninja' (with 'Preface' label). The interface includes a top navigation bar with a search filter, an 'Add Issue' button, and a left sidebar with various icons for settings, analytics, and help.

Version Control System



Repository to store software configuration items

Features:

- Versioning
- Dealing with variants: **branches**
- Access control
 - Authentication, authorization
 - Locking
 - **Concurrent** development
- Reporting
 - How many versions, variants, changes, persons
 - History of changes

Continuous Integration

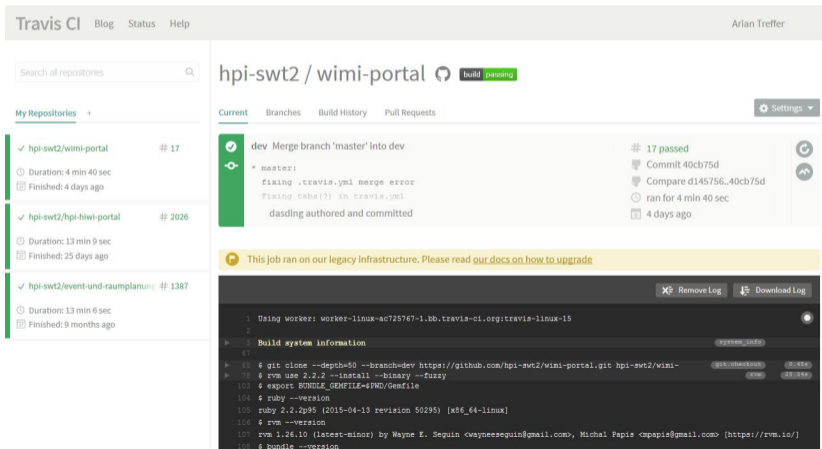


How to check **continuously** that your software works?

Continuous Integration!

- **Connected** to version control
- Customizable run scripts
- Ideally covering all development branches
- Examples:
 - CruiseControl
 - Anthill
 - Jenkins/Hudson
 - **Travis-CI**

■ <https://travis-ci.org/hpi-swt2/workshop-portal>



Travis CI Blog Status Help Arian Treffer

Search all repositories

My Repositories +

- ✓ hpi-swt2/wimi-portal # 17
Duration: 4 min 40 sec
Finished: 4 days ago
- ✓ hpi-swt2/hpi-hiwi-portal # 2026
Duration: 13 min 9 sec
Finished: 25 days ago
- ✓ hpi-swt2/event-und-raumplanung # 1387
Duration: 13 min 6 sec
Finished: 9 months ago

hpi-swt2 / wimi-portal build passing

Current Branches Build History Pull Requests Settings

✓ dev Merge branch 'master' into dev # 17 passed
Commit 40cb75d
Compare d145756..40cb75d
ran for 4 min 40 sec
4 days ago

* master:
fixing .travis.yml merge error
Fixing tabs(?) in travis.yml
dassing authored and committed

This job ran on our legacy infrastructure. Please read [our docs on how to upgrade](#)

Remove Log Download Log

```
1 Using worker: worker-linux-ac725767-1.bb.travis-ci.org:travis-linux-15
2
3 Build system information
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48 $ git clone --depth=50 --branch=dev https://github.com/hpi-swt2/wimi-portal.git hpi-swt2/wimi-
49 $ rvm use 2.2.2 --install --binary --fuzzy
50 $ export BUNDLE_GEMFILE=$PWD/Gemfile
51 $ bundle --version
52 ruby 2.2.2p95 (2015-04-13 revision 50295) [x86_64-linux]
53 $ rvm --version
54 rvm 1.26.10 (latest-minor) by Wayne E. Seguin <wayneesequin@gmail.com>, Michal Papis <mpapis@gmail.com> [https://rvm.io/]
55 $ bundle --version
```

Application Deployment

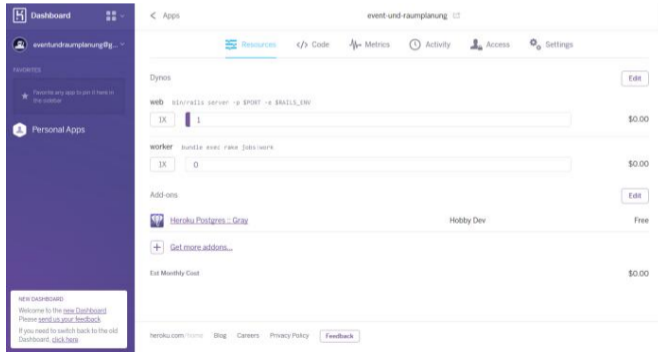


How to have a **running version** available at all times?

Deploy your app!

- Simple solution: local deployment
- Dedicated Servers, Infrastructure-as-a-Service, Platform-as-a-Service
 - more about that in a separate lecture
- We use **Heroku** (PaaS)
- Deployment is **automatically** triggered by successful Travis-CI build

■ <http://heroku.com/>



The screenshot shows the Heroku dashboard for an application named "event-und-raumplanung". The interface is split into a dark blue sidebar on the left and a main content area on the right.

Sidebar (Left):

- Header: "Dashboard" with a user icon and email "eventundraumplanung@y...".
- Section: "FAVORITES" with a note: "Favorite any app to pin it here in the sidebar".
- Section: "Personal Apps" with a user icon.
- Footer: "NEW DASHBOARD" with a message: "Welcome to the new Dashboard. Please send us your feedback. If you need to switch back to the old Dashboard, click here."

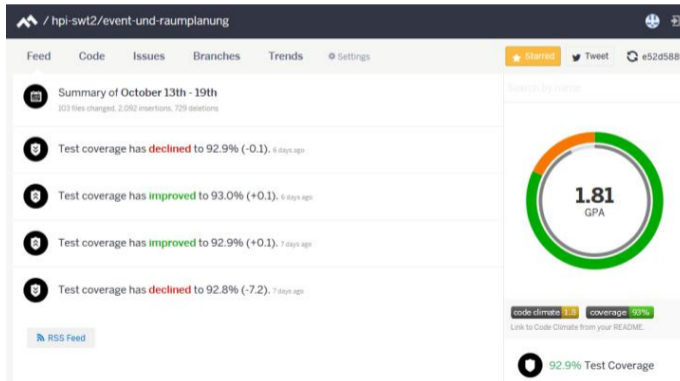
Main Content Area (Right):

- Header: "< Apps" and "event-und-raumplanung".
- Navigation: "Resources", "</> Code", "Metrics", "Activity", "Access", "Settings".
- Section: "Dynos" with an "Edit" button.
 - web:** Command: `bin/rails server -p $PORT -e $RAILS_ENV`. Scale: 1X (1 dyno). Price: \$0.00.
 - worker:** Command: `bundle exec rake jobs:work`. Scale: 1X (0 dynos). Price: \$0.00.
- Section: "Add-ons" with an "Edit" button.
 - Heroku Postgres - Gray (Hobby Dev) - Free.
 - + Get more add-ons...
- Section: "Est. Monthly Cost" - \$0.00.
- Footer: "heroku.com/home", "Blog", "Careers", "Privacy Policy", "Feedback".

How to ensure that your software adheres to certain **quality standards** (complexity, test coverage, etc.)?

- Self-control
- Code Reviews (future lecture)
- **Automatic** checking
 - CodeClimate
 - SimpleCov
 - runs automatically during each test run
 - coverage/index.html in your application folder

- <https://codeclimate.com/github/hpi-swt2/workshop-portal>



All Files (100.0%)	Controllers (100.0%)	Models (100.0%)	Mailables (100.0%)	Helpers (100.0%)	Libraries (100.0%)	Plugins (100.0%)
--------------------	----------------------	-----------------	--------------------	------------------	--------------------	------------------

All Files (100.0% covered at 1.35 hits/line)

6 files in total. 41 relevant lines. 41 lines covered and 0 lines missed

Search:

File	% covered	Lines	Relevant Lines	Lines covered
🔍 app/controllers/application_controller.rb	100.0 %	5	2	2
🔍 app/controllers/job_offers_controller.rb	100.0 %	77	34	34
🔍 app/helpers/application_helper.rb	100.0 %	2	1	1
🔍 app/helpers/job_offers_helper.rb	100.0 %	2	1	1
🔍 app/models/job_offer.rb	100.0 %	2	1	1
🔍 app/models/user.rb	100.0 %	7	2	2

Showing 1 to 6 of 6 entries

Your Project



1. Schedule
2. Calendar
3. Slack
4. Github
5. Travis CI
6. Heroku
7. CodeClimate

Next Weeks' Schedule



Week 1 (Oct 17 – Oct 21)

- Introduction lectures

Week 2 (Oct 24 – Oct 28)

- Find teams, enroll!
- Work on exercise
- Lecture on Scrum
 - Exercise after lunch!

Week 3 (Oct 31 – Nov 4)

- POs: Customer meeting
- Work on exercise

Week 4 (Nov 7 – Nov 11)

- Kick-off presentation
- Start of project

Next Weeks' Team Meetings



Week 5 (Nov 14 – Nov 18)

- PO presents team vision
- Estimation
- Begin 1st sprint
- Planning

Week 6 (Nov 21 – Nov 25)

- Weekly (daily) Scrum
- Estimation

Week 7 (Nov 28 – Dec 2)

- Finish 1st sprint
 - Review
 - Retrospective
- (Estimation)
- Begin 2nd sprint
 - Planning

Image Credits

- "ST vs Gloucester - Match - 23" by PierreSelim - Own work. Licensed under Creative Commons Attribution-Share Alike 3.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:ST_vs_Gloucester_-_Match_-_23.JPG#mediaviewer/File:ST_vs_Gloucester_-_Match_-_23.JPG
- "Scrum process" by Lakeworks - Own work. Licensed under Creative Commons Attribution-Share Alike 3.0-2.5-2.0-1.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Scrum_process.svg#mediaviewer/File:Scrum_process.svg
- „Wien - Seestadt, SW-Areal 2013 (2)" von Bwag - Eigenes Werk. Lizenziert unter Creative Commons Attribution-Share Alike 3.0-at über Wikimedia Commons - [http://commons.wikimedia.org/wiki/File:Wien_-_Seestadt,_SW-Areal_2013_\(2\).JPG#mediaviewer/File:Wien_-_Seestadt,_SW-Areal_2013_\(2\).JPG](http://commons.wikimedia.org/wiki/File:Wien_-_Seestadt,_SW-Areal_2013_(2).JPG#mediaviewer/File:Wien_-_Seestadt,_SW-Areal_2013_(2).JPG)
- "Utility pole in Curitiba" by Leonardo.stabile - Own work. Licensed under Public domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Utility_pole_in_Curitiba.JPG#mediaviewer/File:Utility_pole_in_Curitiba.JPG