

# AMOS Demo Day Preparations

**Prof. Dr. Dirk Riehle**

**Friedrich-Alexander University Erlangen-Nürnberg**

**AMOS H01**

Licensed under CC BY 4.0 International

# The AMOS Demo Day

- The demo day is the final day of the course
  - The demo day is organized as a **fair** (“Messe”)
  - Student teams show the results of their project
  - Audience are industry partners and fellow students
- After the opening, everything runs in parallel

# AMOS Demo Day Time-Line

Time	Agenda / Tasks
09:00-09:45	Set-up of presentation booth
09:45-10:15	Welcoming of industry guests
10:15-10:20	Welcome address by Prof. Riehle
10:20-10:30	One slide presentation by each team
10:30-12:30	Demos and photo op at team booths
12:30-14:00	Clean-up of presentation booth

# One Slide for Each Project / Team

- The slide will be shown during opening remarks, contains:
  - One paragraph (better: one sentence) about the project goal
  - Three logos: Team logo, industry partner logo, FAU logo
  - Optional: Some identifying visual (screenshot, photo of object, ...)
- Delivery format: Screen format (4:3), print to PDF

# Presentation Booth

- Student teams are given “a booth”
  - This is a presentation table and pinboards for posters
  - Students demo their work at this table
  - Students explain their work using two posters
  - Students can create additional materials (e.g. slides)

# Two Posters for Each Team

- One poster on product management, suggested content
  - Project and team name, team logo
  - Short project description
  - Key use cases
- One poster on software development, suggested content
  - Software architecture
  - Employed technology
  - Tooling and processes



## Personalfragebogen 2.0

*Personnel Questionnaire Automation*

Personalfragebogen 2.0 

**Benutzername**  
Bitte Benutzernamen eingeben:

**Passwort**  
Bitte Passwort eingeben:

Remember me ☐ (Passwort gespeichert)

© 2015 AMOS GROUP eG

Profil edit 

**Employees - Overview**

Name | Corporate ID | Download | Send Data | Token | Personalnummer

ID	Corporate ID	Download	Send Data	Token	Personalnummer
1100	123456	Download	Send Data	123456	123456

© 2015 AMOS GROUP eG



Personalfragebogen 2.0\* is a personal data management software solution, supporting companies of any size in hiring new employees more efficiently.

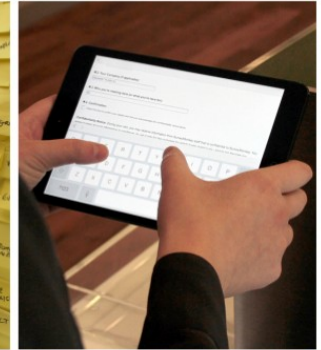
The product improves the hiring process by automating the collection of personal data during the hiring procedure, and provides aid in managing the collected data.

*Demo Day*  
**Friedrich-Alexander Universität  
Erlangen**  
**Wednesday, 15 July 2015 10.15-11.45**

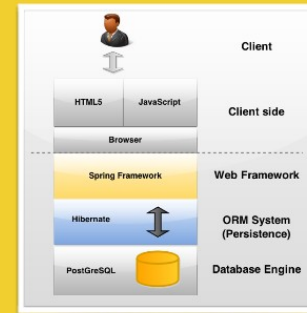
\*Personalfragebogen 2.0 is a joint project between FAU's OSR Group and DATEV eG.

## Personalfragebogen 2.0

*Personnel Questionnaire Automation*



### Software Architecture



### Technology

Name	Function
Spring Framework (4.1.6)	Java based Web Framework
Java SE (7u79)	Fundamental Platform
HTML5	Client-side core technology
Selenium (2.45.0)	UI Testing/Integration Testing
JUnit (4.12)	Java Unit Testing Framework
Hibernate ORM (4.3.9)	ORM System for persistence
PostgreSQL (9.4.1)	Database Management System
Tomcat 7.0.61	For local deployment

\*Personalfragebogen 2.0 is a joint project between FAU's OSR Group and DATEV eG.

# Use of Corporate Identities

- Please use FAU logo
- Please use your team logo
- Please use industry partner logo, but ask first



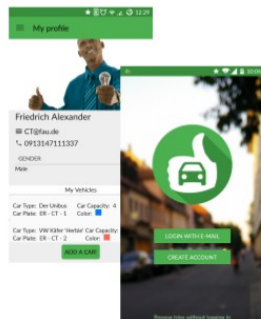


# CroudTrip!

sponsored by Elektrotbit

The CroudTrip! application wants to revolutionize the car-ride-sharing market with its easy, user-friendly and highly automated way of organizing shared Trips!

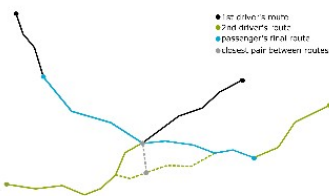
## The Product



- Offer and join shared Trips at short-notice!
- For drivers: Easily find passengers on the way you are going anyway ... and earn money with it!
- For passengers: Reach your destination comfortably!
- We will automatically match you to the best offer in real-time!
- Simply check-in and check-out of your Trips using NFC on your device!
- No direct Trips? No problem - Join a SuperTrip! with multiple drivers!

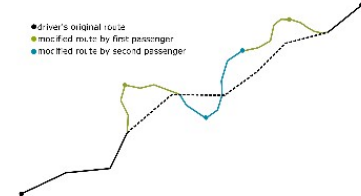
## The Concept

### SuperTrip!



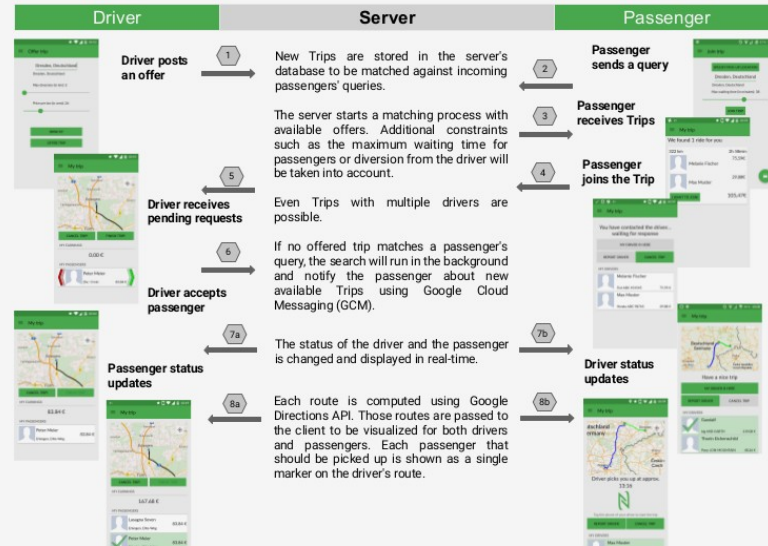
- Combine multiple offered routes to serve passengers even if there is no direct connection available
- Find routes which can pick up a passenger from his start position or drive to his final destination
- Subdivide those routes, compute the closest pair of those waypoints and use it as a "connection point"
- If the distance of the closest pair is too large, start a recursive matching process with these two waypoints

### Multiple Passengers

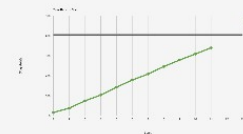


- Match multiple passengers with one driver who will pick them up and bring them to their destinations in an optimal order
- Optimal order is constrained by given internal order of each waypoint pair, because each passenger has to be picked up before the driver reaches his destination location
- Compute optimal order by solving the Travelling Salesman Problem via Brute Force (max. 4 passengers)

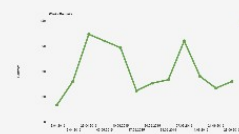
## The Interactions



## The Process



Total Messages  
27% #channels, 1% groups, 72% DMs



- Total # of story points: 370
- Development Speed: 30.9
- 13.23% of total effort used for bugfixing

- Slack as main communication tool
- Integrations for Travis CI, Github and Crashlytics

- Total # of Commits: 727
- Lines of Java Code: 15362
- Lines of Comments: 3938

### The Team



### The Sponsor



### The University



# Presentation Table

- Mandatory
  - Bring a laptop to demo your project
  - Bring anything else necessary
- Optional
  - Be creative, do what works!
  - The goal is to explain your project

# Thank you! Questions?

**[dirk.riehle@fau.de](mailto:dirk.riehle@fau.de) – <http://osr.cs.fau.de>**

**[dirk@riehle.org](mailto:dirk@riehle.org) – <http://dirkriehle.com> – [@dirkriehle](#)**

# Credits and License

- Original version
  - © 2012-2019 Dirk Riehle, some rights reserved
  - Licensed under [Creative Commons Attribution 4.0 International License](#)
- Contributions
  - ...

# AMOS Demo Day Preparations

**Prof. Dr. Dirk Riehle**

**Friedrich-Alexander University Erlangen-Nürnberg**

**AMOS H01**

Licensed under CC BY 4.0 International

It is Friedrich-Alexander University Erlangen-Nürnberg – FAU, in short.  
Corporate identity wants us to say “Friedrich-Alexander University”.

## The AMOS Demo Day

- The demo day is the final day of the course
  - The demo day is organized as a **fair** (“Messe”)
  - Student teams show the results of their project
  - Audience are industry partners and fellow students
- After the opening, everything runs in parallel

## AMOS Demo Day Time-Line

Time	Agenda / Tasks
09:00-09:45	Set-up of presentation booth
09:45-10:15	Welcoming of industry guests
10:15-10:20	Welcome address by Prof. Riehle
10:20-10:30	One slide presentation by each team
10:30-12:30	Demos and photo op at team booths
12:30-14:00	Clean-up of presentation booth

## One Slide for Each Project / Team

- The slide will be shown during opening remarks, contains:
  - One paragraph (better: one sentence) about the project goal
  - Three logos: Team logo, industry partner logo, FAU logo
  - Optional: Some identifying visual (screenshot, photo of object, ...)
- Delivery format: Screen format (4:3), print to PDF



## Presentation Booth

- Student teams are given “a booth”
  - This is a presentation table and pinboards for posters
  - Students demo their work at this table
  - Students explain their work using two posters
  - Students can create additional materials (e.g. slides)

## Two Posters for Each Team

- One poster on product management, suggested content
  - Project and team name, team logo
  - Short project description
  - Key use cases
- One poster on software development, suggested content
  - Software architecture
  - Employed technology
  - Tooling and processes



## Personalfragebogen 2.0

Personnel Questionnaire Automation

Personalfragebogen 2.0

Benutzername:

Passwort:

Benutzername (ID):

© 2015 MARIO GOSCHKE

Personalfragebogen 2.0

Employees - Overview

ID	Name	Abteilung	Beruf	Status	Personalnummer
1	Thomas	Software	Software	aktiv	123456
2	Anna	Marketing	Marketing	aktiv	234567
3	Michael	HR	HR	aktiv	345678
4	Sarah	Finance	Finance	aktiv	456789

© 2015 MARIO GOSCHKE



Personalfragebogen 2.0\* is a personal data management software solution, supporting companies of any size in hiring new employees more efficiently.

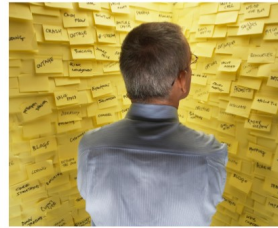
The product improves the hiring process by automating the collection of personal data during the hiring procedure, and provides aid in managing the collected data.

**Demo Day**  
Friedrich-Alexander Universität  
Erlangen  
Wednesday, 15 July 2015 10.15-11.45

\*Personalfragebogen 2.0 is a joint project between FAU's OSR Group and DATEV eG.

## Personalfragebogen 2.0

Personnel Questionnaire Automation



### Software Architecture



### Technology

Name	Function
Spring Framework (4.1.6)	Java based Web Framework
Java SE (7u79)	Fundamental Platform
HTML5	Client-side core technology
Selenium (2.45.0)	UI Testing/Integration Testing
JUnit (4.12)	Java Unit Testing Framework
Hibernate ORM (4.3.9)	ORM System for persistence
PostgreSQL (9.4.1)	Database Management System
Tomcat 7.0.61	For local deployment

\*Personalfragebogen 2.0 is a joint project between FAU's OSR Group and DATEV eG.

## Use of Corporate Identities

- Please use FAU logo
- Please use your team logo
- Please use industry partner logo, but ask first

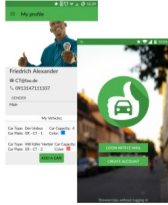


# CroutTrip!

sponsored by Elektrobit

The CroutTrip! application wants to revolutionize the car-ride-sharing market with its easy, user-friendly and highly automated way of organizing shared Trips!

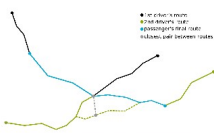
## The Product



- Offer and join shared Trips at short-notice!
- For drivers: Easily find passengers on the way you are going anyway ... and earn money with it!
- For passengers: Reach your destination comfortably!
- We will automatically match you to the best offer in real-time!
- Simply check-in and check-out of your Trips using NFC on your device!
- No direct Trips? No problem - Join a SuperTrip! with multiple drivers!

## The Concept

### Super Trip!



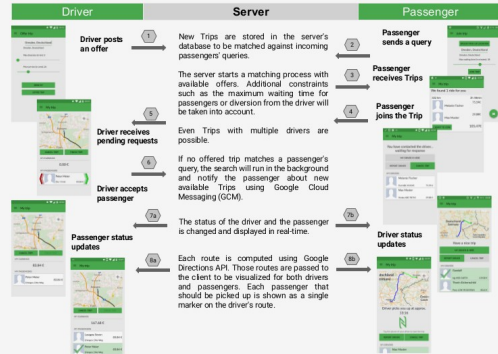
- Combine multiple offered routes to serve passengers even if there is no direct connection available
- Find routes which can pick up a passenger from his start position or drive to his final destination
- Subdivide those routes, compute the closest pair of those waypoints and use it as a "connection point"
- If the distance of the closest pair is too large, start a recursive matching process with these two waypoints

### Multiple Passengers

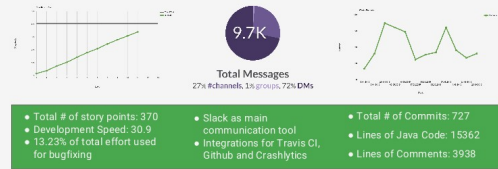


- Match multiple passengers with one driver who will pick them up and bring them to their destinations in an optimal order
- Optimal order is constrained by given internal order of each waypoint pair, because each passenger has to be picked up before the driver reaches his destination location
- Compute optimal order by solving the Travelling Salesman Problem via Brute Force (max. 4 passengers)

## The Interactions



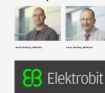
## The Process



### The Team



### The Sponsor



### The University



## Presentation Table

- Mandatory
  - Bring a laptop to demo your project
  - Bring anything else necessary
- Optional
  - Be creative, do what works!
  - The goal is to explain your project

# Thank you! Questions?

**[dirk.riehle@fau.de](mailto:dirk.riehle@fau.de) – <http://osr.cs.fau.de>**

**[dirk@riehle.org](mailto:dirk@riehle.org) – <http://dirkriehle.com> – [@dirkriehle](#)**

DR

## Credits and License

- Original version
  - © 2012-2019 Dirk Riehle, some rights reserved
  - Licensed under [Creative Commons Attribution 4.0 International License](#)
- Contributions
  - ...