

THE DOUBLE-EFFECT APPROACH TO SERIOUS
GAMES IN HIGHER EDUCATION:
STUDENTS DESIGNING AND DEVELOPING SERIOUS GAMES
FOR OTHER STUDENTS



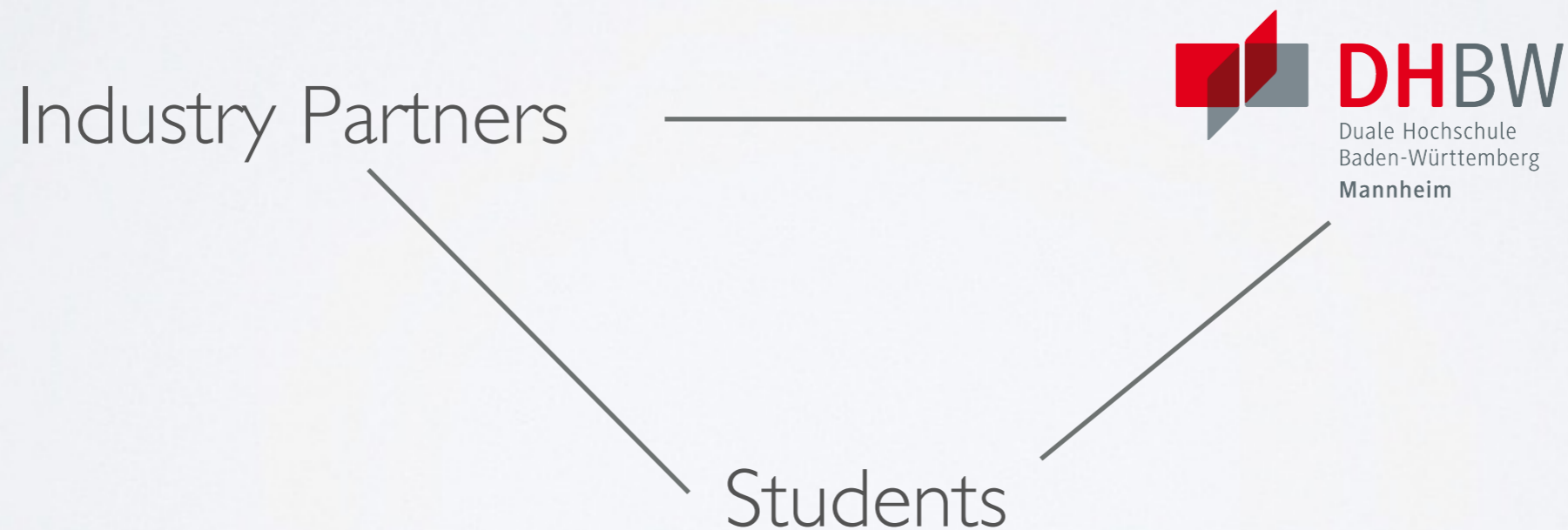
Peter Mayr, Harald Bendl and Frauke Moerike

AGENDA

- IMBIT @ DHBW Cooperative State University
- The Double-Effect Approach to SG Design
- The Project: 30 students / 12 weeks / 50 hours
- Review: Application, Outcomes & Learnings
- Follow-up Projects

DHBW COOPERATIVE STATE UNIVERSITY MANNHEIM

Dual Study Concept

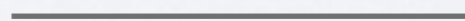


IMBIT: INT'L MANAGEMENT FOR BUSINESS AND IT

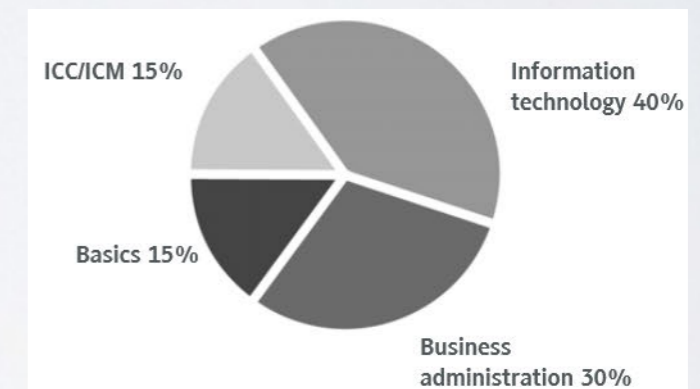
Industry Partners



SCHENKER



Students

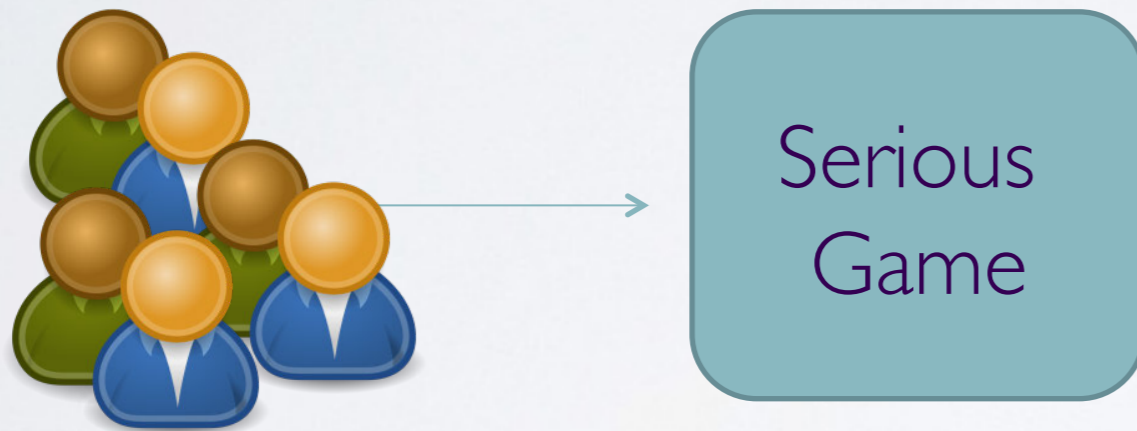


www.imbit.dhbw-mannheim.de

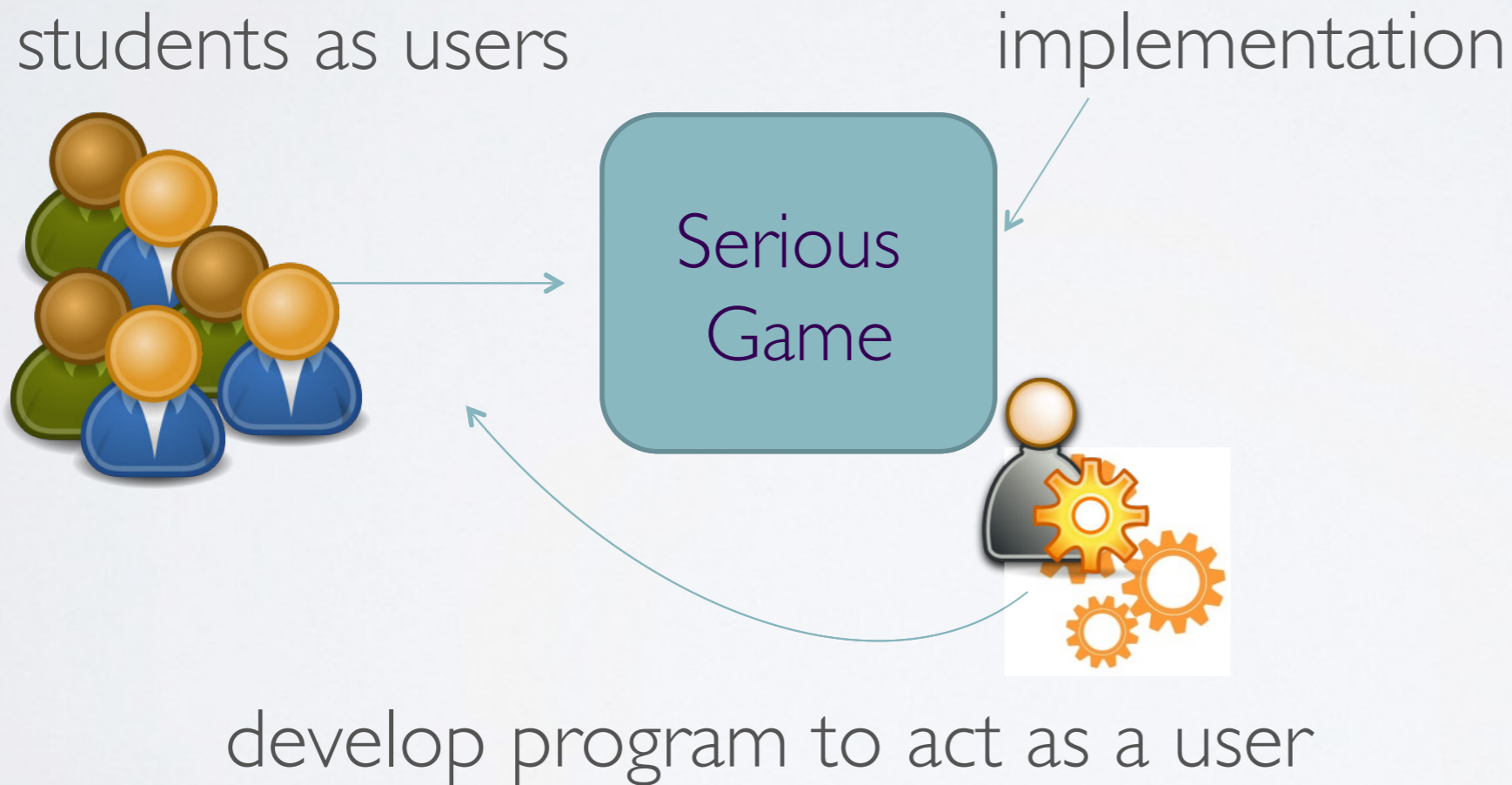


THE DOUBLE-EFFECT APPROACH TO SG DESIGN

students as users



THE DOUBLE-EFFECT APPROACH TO SG DESIGN



THE DOUBLE-EFFECT APPROACH TO SG DESIGN

students as users



development

plot / content

design

technical realization

THE PROJECT: 30 STUDENTS / 12 WEEKS / 50 HOURS

Challenge: Develop a SG „brilliantCRM“

Project management of a global CRM implementation

Industry example provided: „Shark world“

Conditions:

12 weeks time to present a running SG prototype providing...

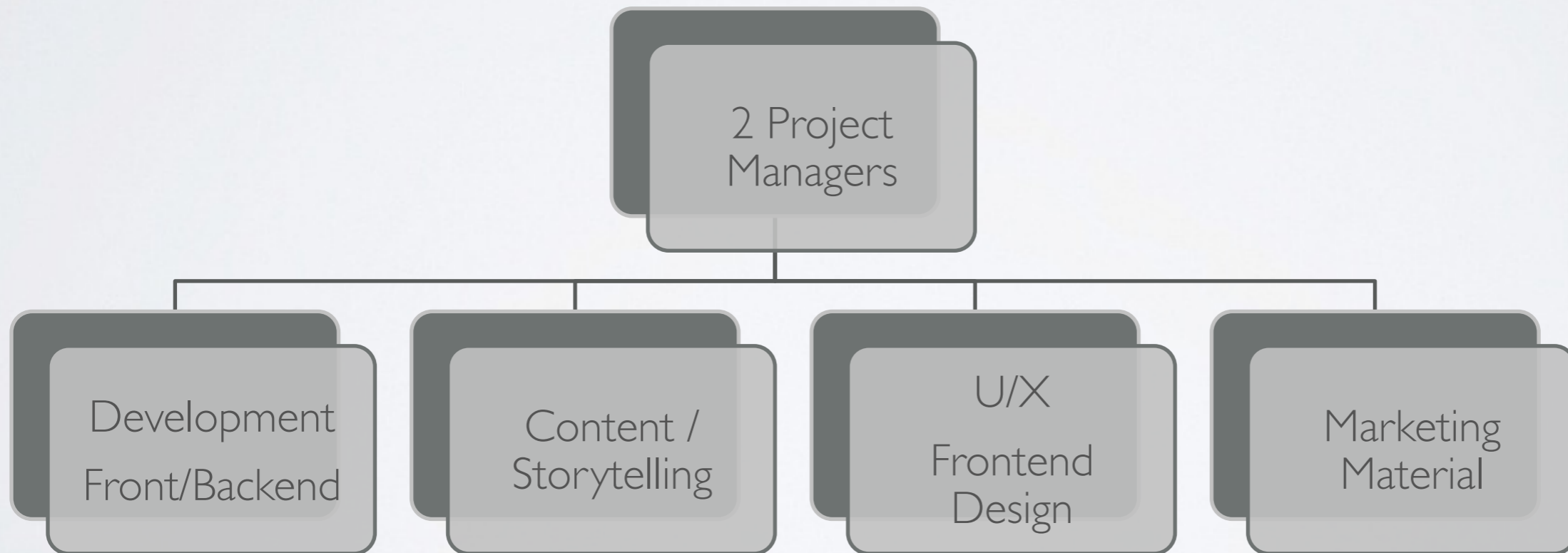
- ... accurate und interesting content on project mangement tasks, specifics on CRM projects and challenges intercultural collaboration
- ... a browser-based UI running on mobile multi touch devices
- ... user administration and reporting environment for lecturers
- ... marketing material for the product launch of the SG
- ... low budget handling (<50EUR/student)

THE PROJECT: 30 STUDENTS / 12 WEEKS / 50 HOURS

Set Up:

Lecturers Peter Mayr & Harald Bendl as client/sponsors

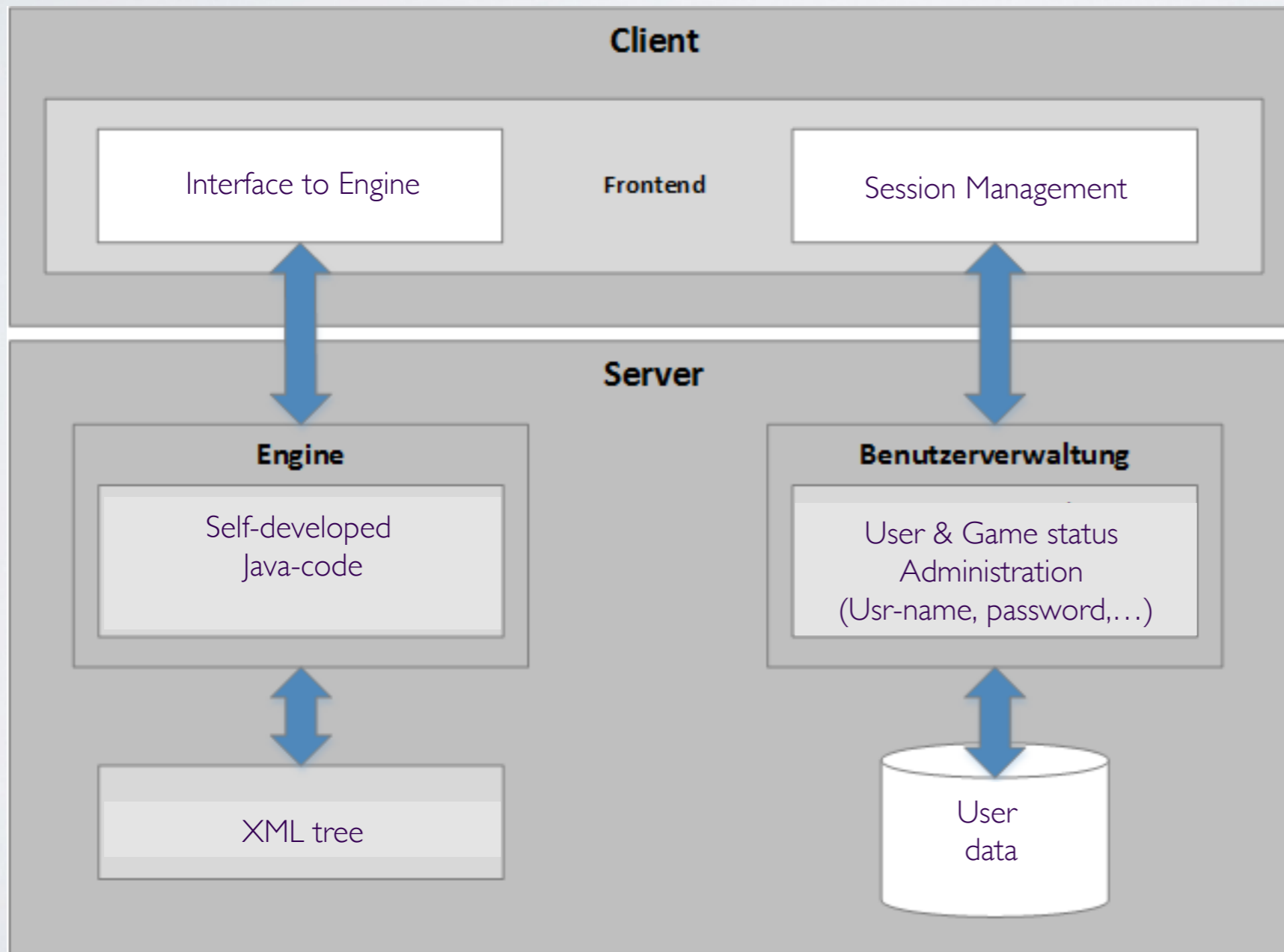
Student's self-organized structure:



THE PROJECT: 30 STUDENTS / 12 WEEKS / 50 HOURS

Technical realization:

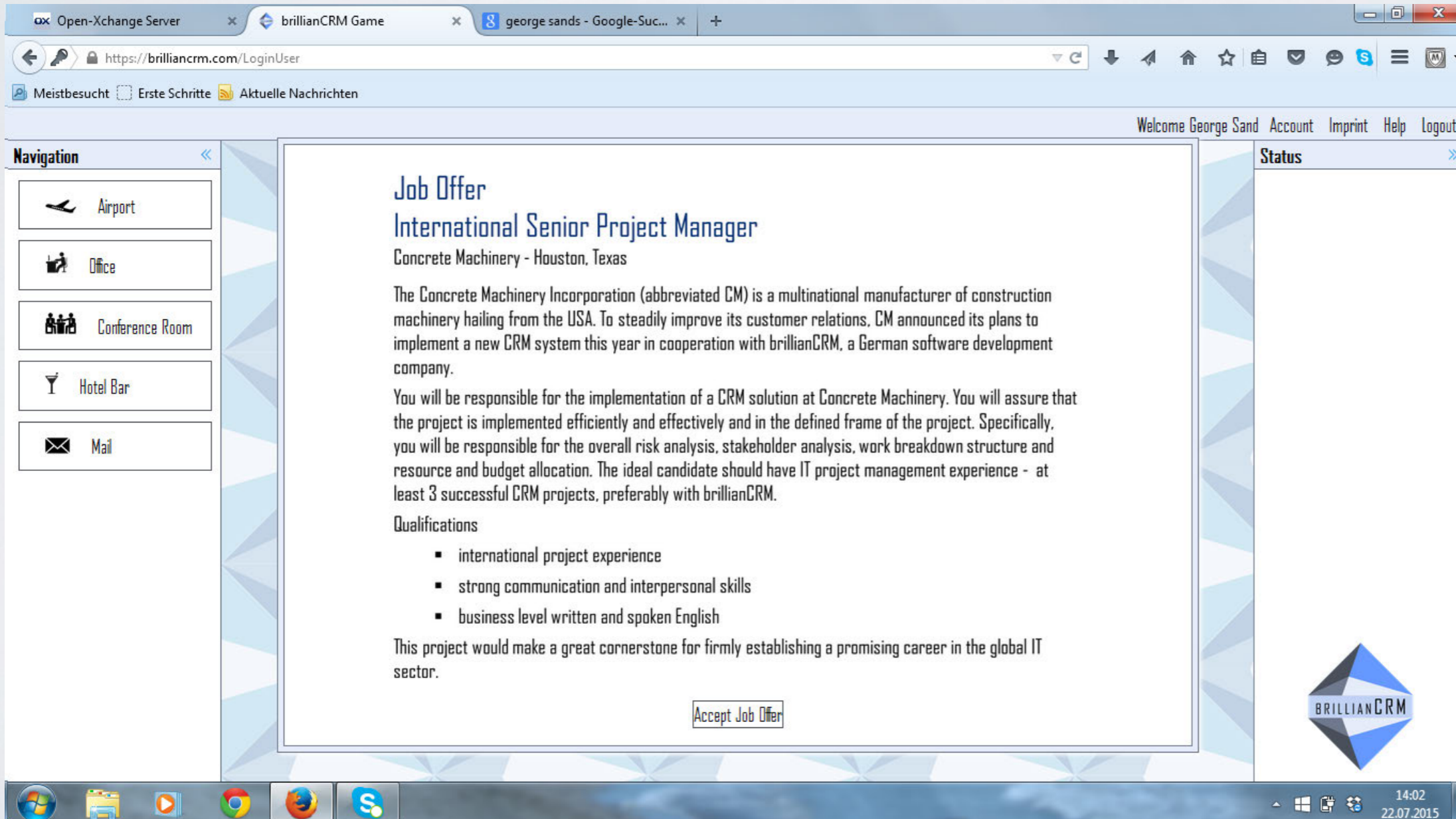
agile development approach



THE PROJECT: 30 STUDENTS / 12 WEEKS / 50 HOURS

SG content:

CRM Project Management Challenges



Open-Xchange Server | brilliantCRM Game | george sands - Google-Suc... | +

https://brilliantcrm.com/LoginUser

Welcome George Sand | Account | Imprint | Help | Logout

Job Offer

International Senior Project Manager

Concrete Machinery - Houston, Texas

The Concrete Machinery Incorporation (abbreviated CM) is a multinational manufacturer of construction machinery hailing from the USA. To steadily improve its customer relations, CM announced its plans to implement a new CRM system this year in cooperation with brilliantCRM, a German software development company.

You will be responsible for the implementation of a CRM solution at Concrete Machinery. You will assure that the project is implemented efficiently and effectively and in the defined frame of the project. Specifically, you will be responsible for the overall risk analysis, stakeholder analysis, work breakdown structure and resource and budget allocation. The ideal candidate should have IT project management experience - at least 3 successful CRM projects, preferably with brilliantCRM.

Qualifications

- international project experience
- strong communication and interpersonal skills
- business level written and spoken English

This project would make a great cornerstone for firmly establishing a promising career in the global IT sector.

Accept Job Offer

Navigation: Airport, Office, Conference Room, Hotel Bar, Mail

Status

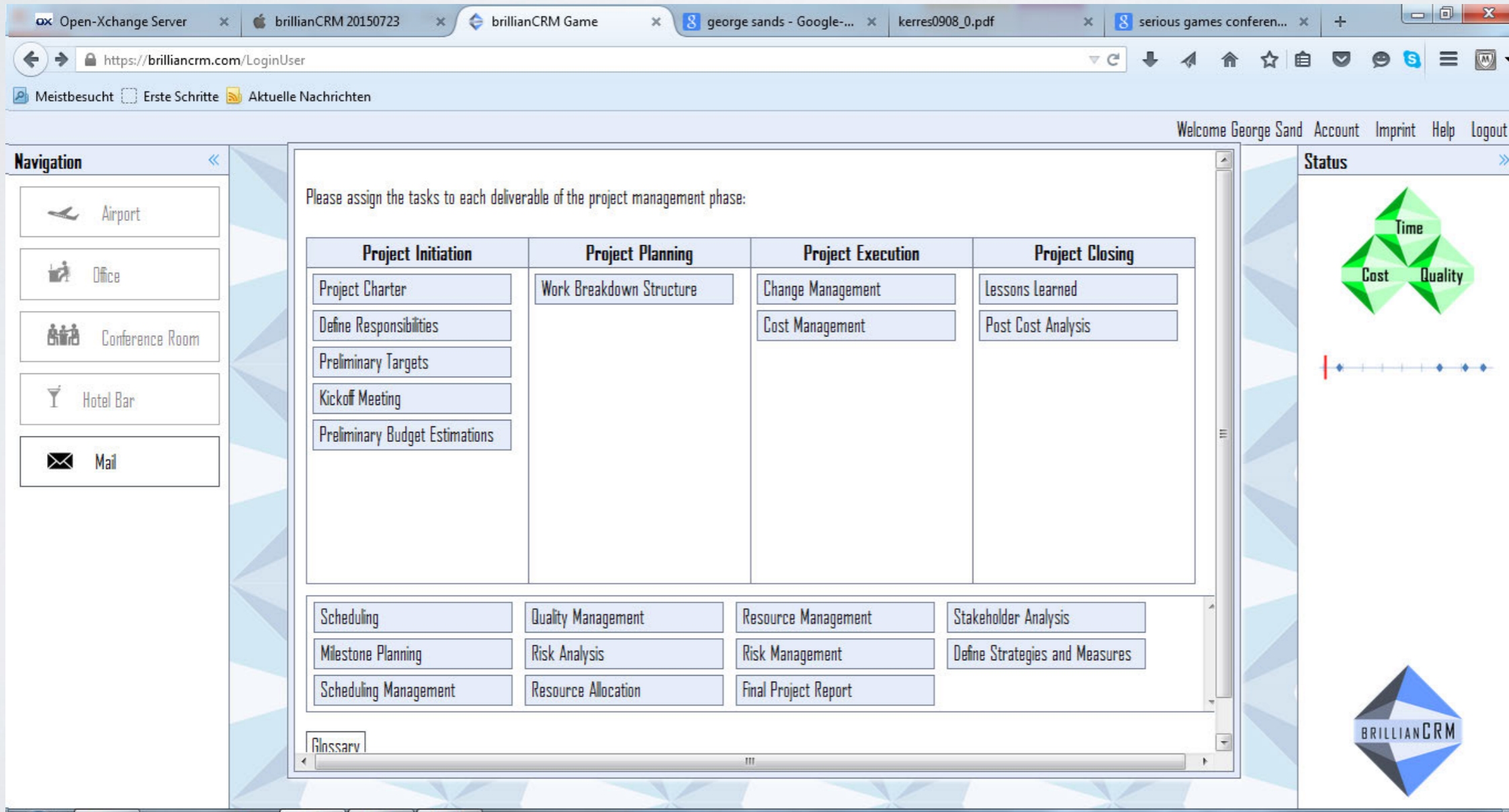
BRILLIAN CRM

14:02 22.07.2015

THE PROJECT: 30 STUDENTS / 12 WEEKS / 50 HOURS

SG content:

CRM Project Management Challenges



The screenshot shows a web browser window with several tabs open. The active tab is 'brilliantCRM Game'. The URL is 'https://brilliantcrm.com/LoginUser'. The page content includes a navigation menu on the left with options like 'Airport', 'Office', 'Conference Room', 'Hotel Bar', and 'Mail'. The main area displays a task assignment interface with the instruction: 'Please assign the tasks to each deliverable of the project management phase:'. Below this is a table with four columns: 'Project Initiation', 'Project Planning', 'Project Execution', and 'Project Closing'. The 'Project Initiation' column contains tasks like 'Project Charter', 'Define Responsibilities', 'Preliminary Targets', 'Kickoff Meeting', and 'Preliminary Budget Estimations'. The 'Project Planning' column contains 'Work Breakdown Structure'. The 'Project Execution' column contains 'Change Management' and 'Cost Management'. The 'Project Closing' column contains 'Lessons Learned' and 'Post Cost Analysis'. Below the table are additional task categories: 'Scheduling', 'Milestone Planning', 'Scheduling Management', 'Quality Management', 'Risk Analysis', 'Resource Allocation', 'Resource Management', 'Risk Management', 'Final Project Report', 'Stakeholder Analysis', and 'Define Strategies and Measures'. On the right side, there is a 'Status' section with a green pyramid diagram labeled 'Time', 'Cost', and 'Quality', and a progress bar. The bottom right corner features the 'BRILLIANCRM' logo and the 'IMBIT' logo.

Project Initiation	Project Planning	Project Execution	Project Closing
Project Charter	Work Breakdown Structure	Change Management	Lessons Learned
Define Responsibilities		Cost Management	Post Cost Analysis
Preliminary Targets			
Kickoff Meeting			
Preliminary Budget Estimations			
Scheduling	Quality Management	Resource Management	Stakeholder Analysis
Milestone Planning	Risk Analysis	Risk Management	Define Strategies and Measures
Scheduling Management	Resource Allocation	Final Project Report	

THE PROJECT: 30 STUDENTS / 10 WEEKS / 50 HOURS

SG content:

Lecturer's administration & Reporting

Imprint Logout

Lecturer Page

List of Groups

Below, all existing groups are listed with their belonging students.

- You are able to send emails to invite new group members by pressing "Send Invitation".
- You are able to permanently ungroup groups, deleting the group but not its members, by pressing "Ungroup".
- You are able to permanently delete groups with their belonging members by pressing "Delete Group".
- You are able to jump to a node in the game and setting the TCQ values to 71 by choosing a node and pressing "Jump To".

aTechGroup

There are currently no students in this group. Invite students by sending a registration email.

Public

		Last Name	First Name	Cost	Time	Quality	Finished	Email
<input type="button" value="Delete"/>	<input type="button" value="Reset"/>	安吉拉	安吉拉	71	71	71	No	e410085@trbvm.com
<input type="button" value="Delete"/>	<input type="button" value="Reset"/>	Again	Try	71	71	71	No	g249016@trbvm.com
<input type="button" value="Delete"/>	<input type="button" value="Reset"/>	Akgün	Can	50	50	50	No	can.akguen@gmail.com
<input type="button" value="Delete"/>	<input type="button" value="Reset"/>	Ann	Jennifer	71	71	71	No	jennifer@web.de

THE PROJECT: 30 STUDENTS / 12 WEEKS / 50 HOURS

SG Marketing Concept

Product name: brillianCRM

Logo, Claim, CI/CD

Video-Trailer

Poster

Facebook-Page

www.brillianCRM.com



Application of the SG in Project Management Lectures

SG brilliantCRM incorporated into

- 2nd year lectures
- Master degree courses

- activation method & repetition exercise
- Student feedback as users: input for next SG development

Critical:

- SG use mainly dependent on lecturer's awareness

SG Design by Students for Students

- Tailormade teaching and learning contents
- Marginal costs
- Peer-to-peer learning: student's view for appropriate complexity

Critical:

- Limited scope of the SG

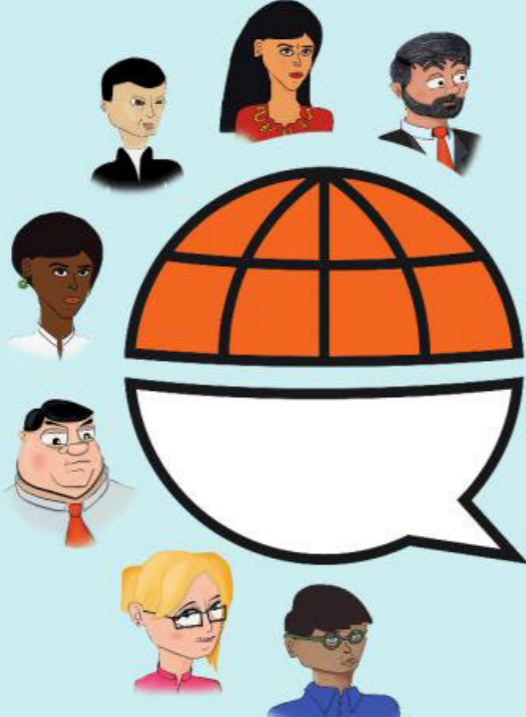
Game-development-based Learning as a Method

- multi-dimensional skillset required
- immediate results visible
- Students showed high dedication & engagement
- Segmented structure of SG design: individual contribution traceable

Critical:



- Students' tendency to focus on most familiar tasks
- homogeneous learning results achievable?

THE NEXT SG PROJECT



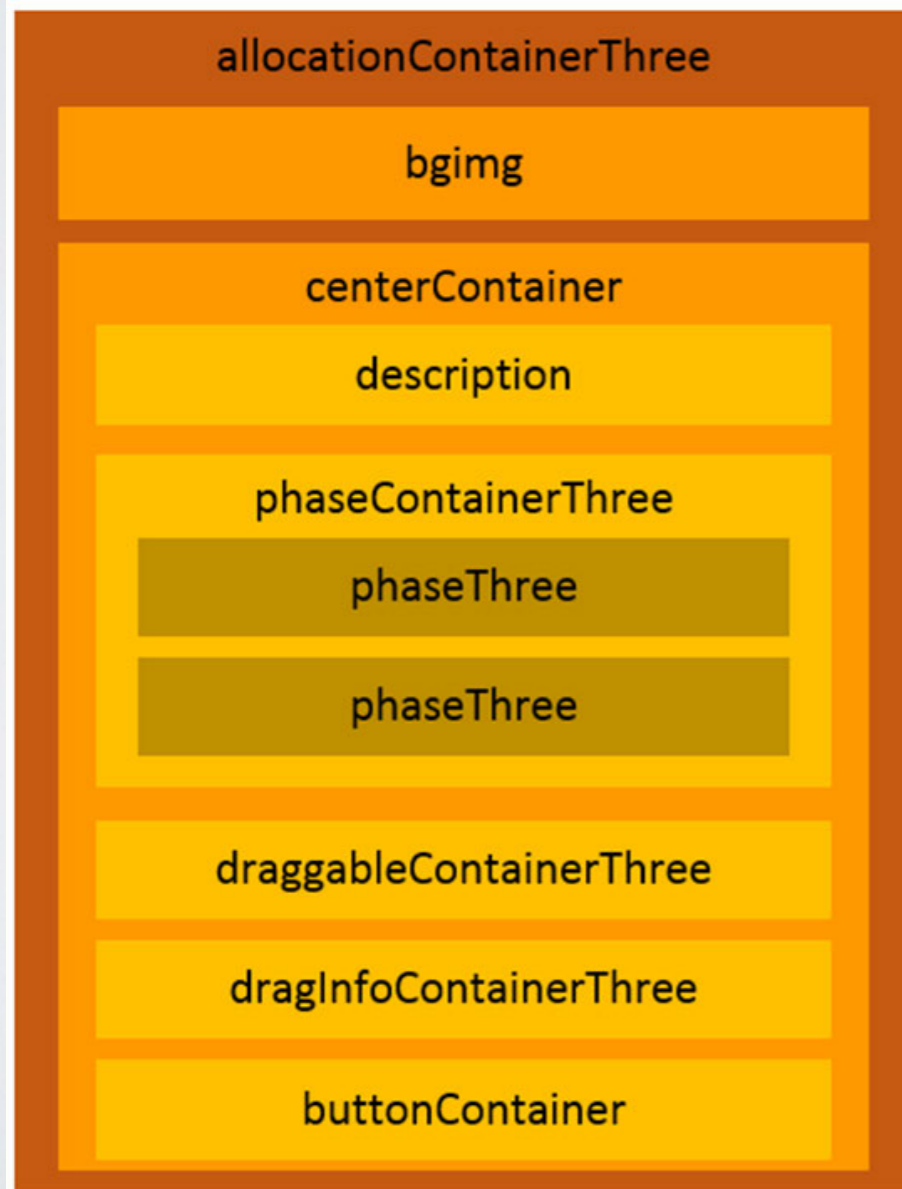
**brilliant
ICM**

The Serious Game for Your
Intercultural Competencies



www.brilliantICM.com
www.imbit.dhbw-mannheim.de

THE NEXT SG PROJECT



THE NEXT SG PROJECT

Invitation by your colleague to pub night



What about having dinner tonight. You could try some Brazilian specialities. I know a very good place called 'Damas'. Me and my colleagues go there nearly every week.



Thank you for asking, but I am still totally exhausted from the flight and a bit groggy. I really would like to unpack my stuff first and do all that organizational kind of things.

(He looks at you, slowly nods his head, hesitates a little bit and eventually says) Oh, are you sure? ... Well, fine then... See you tomorrow.

THE NEXT PROJECT... YOURS?

Open platform – invitation for further developments

- New Contents
- Enhancements to the Game Engine
- Extension of the lecturer's frontent



Thank you for your attention!
Questions?

