iOS Praktikum WS14/15 Info Meeting

(July 26, 2014)

Creating mobile applications with the iOS SDK

Chair for Applied Software Engineering
Prof. Bernd Brügge, Ph. D.

iOS Praktikum WS14/15

Course Goal

In this course you develop applications which experiment with modern user interface requirements. You get to know background, tools and skills required to develop applications for iOS.

In addition to software engineering concepts like object oriented analysis and design you learn key concepts of usability engineering and continuous delivery. You get in touch with Swift, the programming language Apple unveiled at WWDC.

For this course, real industrial partners provide problem statements. You get real team and project experience while actually using real data and working tightly together with the client with a real deadline.

Info Meeting
June 26 4 pm c.t.
Interims Lecture Hall 1

Kickoff Meeting
October 9, 5:30 pm c.t.
Interims Lecture Hall 2

Registration
www1.in.tum.de/ios

only genuine 6Rs with the

✓ Real customers
✓ Real problem statements
✓ Real data
✓ Real team experience
✓ Real project experience
✓ Real deadlines

Contact: Lukas Alperowitz, Stephan Krusche (01.07.55, ios@in.tum.de)

Why should you attend?

This is a challenging course!

We have

– **R**eal customers

– **R**eal problem statements

– **R**eal data

– **R**eal team experience

– **R**eal project experience

– **R**eal deadlines

Course structure

Kickoff: October 9, 2014 (Thursday)

– Problem statement presentations by the customers

– Planned: 8-11 projects with 5-8 team members

Organizational phase

– Students can express preference for specific projects

– One team per project

– One project leader and one coach per team

Requirements elicitation with the customer

– Focus on usability engineering

– Usage of mockups and executable prototypes

– Agile development with early product increments

What we expect from you

Knowledge in object-oriented programming languages and paradigms (such as Java, C++, C#, Objective-C…)

Abilities in UML-Modeling

You understand Class Diagrams and Use Case Diagrams

Team player abilities

Our projects are demanding and require real team work as well as communication with the customer

High motivation

Challenging tasks require attention and commitment beyond a normal course

Helpful skills for taking the course

Knowledge in iOS development

– Objective-C / Cocoa Touch / Swift :-)

– iOS SDK

Usability engineering

– Prototyping

– Mockups

Soft skills

– Presentation techniques

– Interaction with the client

Design Patterns

During the course you ...

... gain experience in all phases of an agile software development project
  – Analysis, Design, Rationale, Implementation, Testing, Delivery
  – State of the art tools: JIRA, Confluence, Bamboo, Stash, HockeyApp, ...

... develop an iOS application
  – Swift
  – iOS 8

... deliver the application to the customer
  – Continuous Delivery (Multiple times during the course)
  – Gather feedback from your customer and end users

... improve your soft skills
  – Presentation in front of all participants and your customer
  – Software theater
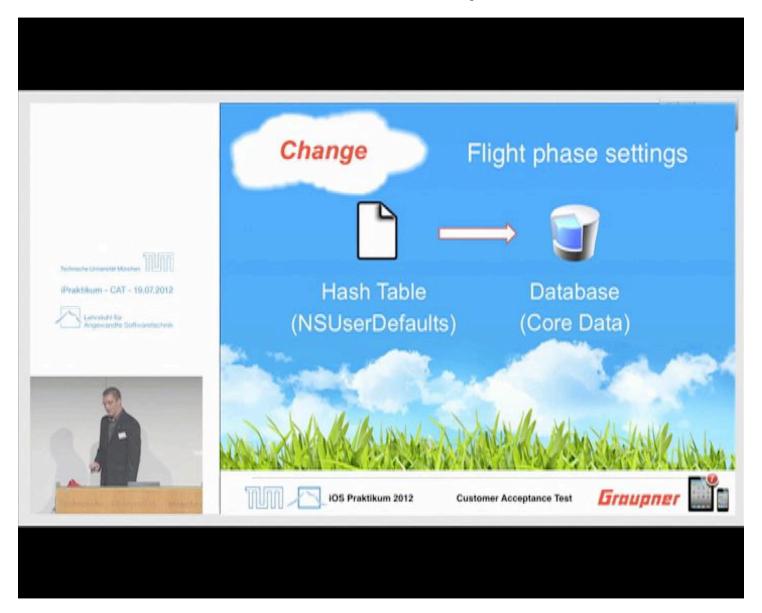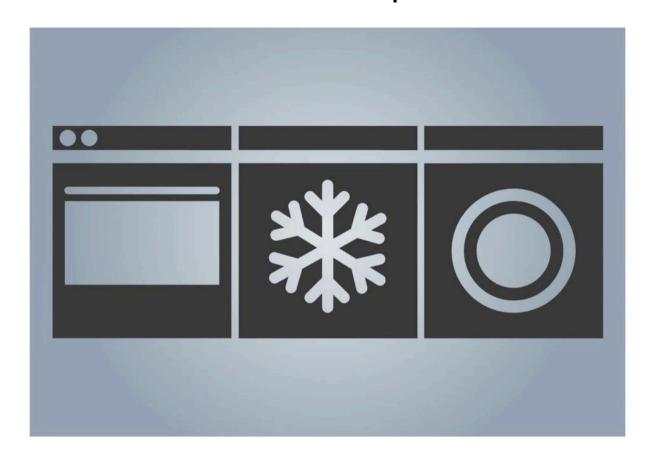
Examples from previous courses

www1.in.tum.de/iphone08

www1.in.tum.de/iphone09

www1.in.tum.de/iphone10

www1.in.tum.de/ios11

www1.in.tum.de/ios12

www1.in.tum.de/ios13

www1.in.tum.de/ios14

Demo Example

Trailer Example #1

Trailer Example #2

Project organization (SS14)

Intensive support

Prof. Bernd Brügge, Ph.D.

Stephan Krusche

Lukas Alperowitz

Stefan Nosović

Martin Wagner

Nitesh Narayan

Juan Haladjian

Jan Knobloch

Barbara Köhler

Yang Li

Hoda Naguib

Sebastian Peters

Helma Schneider

Emitzá Guzman

Rana Alkadhi

Monika Markl

Ruth Demmel

Damir Ismailović

Registration process

1 Fill out the survey on <u>www1.in.tum.de/ios</u>
Due: July 4

2 Prioritize the iOS Praktikum in the <u>new matching system</u>
Between: July 4 - 8

3 We inform you about your application
Due: July 13

**Important: You have to complete the survey AND
enter your preferences in the matching system!**

Questions

When will the customers be announced?

- At the kickoff meeting on October 09 :-)

How can I prepare for the course?

- Read a **Software Engineering book** (e.g. Bernd Brügge, Allen H. Dutoit - Object-Oriented Software Engineering: Using UML, Patterns and Java)

- Read a **Usability Engineering book** (e.g. Jakob Nielsen - Usability Engineering)

- Watch an online iOS Tutorial (e.g. Stanford: http://www.stanford.edu/class/cs193p)

- Look at the Client Acceptance Presentations of previous years

When does the course end?

- With the end of the semester

- Tentative: January 30, 2015 (Client Acceptance Test)