

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



- ✓ 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

- Real customers
- Real problem statements
- Real data
- Real team experience
- Real project experience
- Real 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

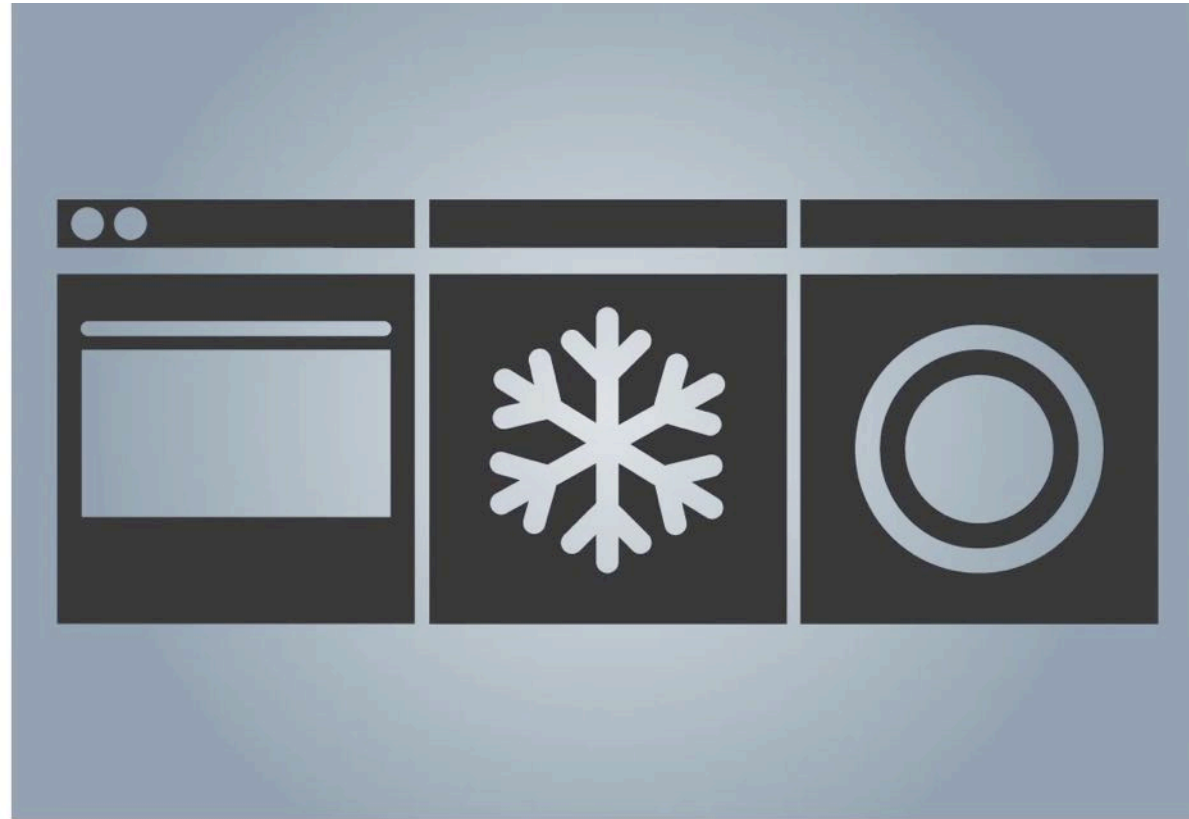
The slide features a blue sky background with green grass at the bottom. At the top left, the word "Change" is written in red inside a white cloud. To its right, the text "Flight phase settings" is displayed. Below "Change" is a document icon, and below "Flight phase settings" is a database icon. A red arrow points from the document icon to the database icon. Under the document icon is the text "Hash Table (NSUserDefaults)", and under the database icon is "Database (Core Data)".

On the left side of the slide, there is a white sidebar containing the following text and logos:
Technische Universität München
iPraktikum - CAT - 19.07.2012
 Lehrstuhl für Angewandte Softwaretechnik

At the bottom of the slide, there is a footer with the following elements:
 iOS Praktikum 2012 Customer Acceptance Test



Trailer Example #1



SIEMENS

Trailer Example #2

icePad

Project organization (SS14)

Program Management



Stephan Krusche
Program Manager

Bernd Brügge
Program Manager
Methodologist

Lukas Alperowitz
Program Manager

iOS Praktikum 2014

Infrastructure




Helma Schneider
Head of Technology
Administration

Franz Bellmaier
Technical
Administration

Monika Markl
Chair Secretary

Ruth Demmel
Head of Movie Team

adesso Maximilian Aulinger adesso Alexander Frommelt adesso Project Management Barbara Reichart Project Leader Hoda Naguib Project Leader	B/S/H/ Jörg Schneider B/S/H/ Kay-Uwe Clemens B/S/H/ Project Management Martin Wagner Project Leader	BMW Vitus Holzner BMW Project Management Stephan Krusche Project Leader	Boinx Software Oliver Breidenbach Boinx Bastian Wölflé Boinx Project Management Jan Knobloch Project Leader	Carnegie Mellon University Vivian Loftness CMU Azizan Aziz CMU Project Management Sebastian Peters Project Leader Stefan Nosović Project Leader	equinux Adrian Thomas equinux Ralf Pflieger equinux Project Management Nitesh Narayan Project Leader	NTT DATA Frank von Eitzen NTT Data Alexander Mirson NTT Data Project Management Lukas Alperowitz Project Leader	Praxis für Sporttraumatologie Dr. Jürgen Höher Praxis für Sporttraumatologie Markus Fink Praxis für Sporttraumatologie Project Management Juan Haladjian Project Leader	SIEMENS IT Rebecca Johnson Siemens CIT CA Project Management Bernd Brügge Project Leader	SIEMENS SPE Mahran Meißner Siemens CIT CA Project Management Bernd Brügge Project Leader	T-Systems Stefan Rühl T-Systems Andreas Droste Airbus Project Management Jan Knobloch Project Leader Juan Haladjian Project Leader	
Mark Becker Coach	Mariana Avezum Coach	Christoph Bruns Coach	Valentin Sawadski Coach	Pascal Stegmann Coach	Christopher Fuseschi Coach	Andreas Seitz Coach	Natalia Zarawska Coach	Thiemo Taube Coach	Dora Dzvonyar Coach	David Frey Coach	Stephan Krusche Lukas Alperowitz Coach Instructors
Development Team Luc Gaasch	Development Team Christoph Graumann	Development Team Christoph Vogeler	Development Team Jana Pejic	Development Team Nadine Frankenberg	Development Team Daniel Menke	Development Team Fabian Stark	Development Team Mertcan Yigin	Development Team Julian Willand	Development Team Tim Bodeit	Development Team Mateusz Burek	Lukas Alperowitz Sebastian Klepper Release Management
Patrick Bilic	Pei Wu	Vladislav Stepa	Jakob Schweilhelm	Balsa Bojic	Bilal Al-Saeedi	Denghui Shi	Pascal Fritzen	Patrick Bürgin	Mahsa Haratiannejad	Emin Guliyev	Pascal Stegmann Florian Hirschmann Architecture
Orest Tarasuk	Diana Papayan	Ahmed Shafei	Muhammad Khan	Noha Khater	Jan Ole Johanßen	Andreas Preg	Agon Lohaj	Bardh Lohaj	Marko Lalic	Jan-Niklas Kohlhaas	Christopher Fuseschi Valentin Sawadski Mark Becker Code Quality
Dan Wu	Ebru Yildirimli	Yixiang Chen	Alexandra Lungu	Stefan Gimander	Ibrahim Alzant	Hanna Schäler	Diane Xhymshili	Michael Wang	Alba Khani	Christoph Ert	Thiemo Taube Stephan Krusche Modeling
Md. Habibur Rahman	Alexander Meissner	Julia Kindelsberger	Mina Kleid	Xiao Xue	Rishigesh Munugesh	Johannes Flemke	Tim Haug	Akshat Malhotra	Victor Saavedra	Linda Leidig	
Fei Pan	Liubou Yudasina	Sabrina Senna	Andreas Reiser	Dominic Henze	Alexandra Fritzen	Tevfik Aloglu	Timo Köhler	Sajjad Taheritanjani	Alexander Heemann	Alexander Richter	
Hazem Safeti	Meliha Duman	Mohammad Hasan		Bernhard Kremnski	Maximilian Schramme	Lukas Kick		Julia Glas	Wenbo Huang	Parisa Elahidoost	
				Arno Schneider		Masuma Khanom		Efe Amadasun	Md. Mushfiqur Rahman		



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 www1.in.tum.de/ios
Due: July 4
- 2 Prioritize the iOS Praktikum in the new matching system
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)

