



Aalto-yliopisto
Teknillinen korkeakoulu

Welcome to NAF

Jukka K. Nurminen

17.1.2012

T-110.5140 Network Application Frameworks
Spring 2012

Advertisements

- Summer Internships in Data Communications Software
 - Applications until 15.2.2012
 - <http://cse.aalto.fi/2012/01/17/summer-internships-in-data-communications-software/>
- Applications for EIT ICT-labs Master programs now open
 - Applications until 15.2.2012
 - <http://eitictlabs.masterschool.eu/>

Contact information

- Lectures & general issues
 - Prof. Jukka K. Nurminen (jukka.k.nurminen@aalto.fi)
- Assignments & practical arrangements
 - Matti Kempainen (kemppi@cs.hut.fi) (until 30.3.2012)
 - Karthik Mallavarapu (ramasivakarthik.mallavarapu@aalto.fi)
- Personal questions by email
 - T-110.5140@tkk.fi
- Follow Noppa for news

Course focus and goals

- General overview of different level of network application frameworks
- Application developer point of view
 - Special emphasis on mobile applications
- In lectures the focus is on general mechanisms, in assignments you get practical exposure
- This course does not make you a web developer, or a mobile device developer, but gives you the basis for learning details later

Related Courses

- T-106.4300 Web Software Development (3-6 cr)
- T-110.5130 Mobile Systems Programming (5 cr)
- T-110.5121 Mobile Cloud Computing (5 cr)
- T-79.5308 Scalable Cloud Computing P (5 cr)

Course Overview

Lectures

Intro

Web interfaces
(XML, JSON, SOAP,
REST, Facebook
and Google APIs)

Web (server, client,
integration, etc.) –
PartyBlastr example
Juha Paananen,
Jouni Hartikainen,
Reaktor

HTML5
Claudio Riva, Nokia

Mobile
Platforms
(Android,
WP7, iOS)
(joint lectures
with mobile
systems
programming)

Exam

Assignments

XML

Facebook and
Google APIs

Mobile SW

Course Structure

- Lectures in III period
 - A summary lecture in May before exam
 - NAF lectures Tuesdays 12.15-14 in T2
 - Mobile lectures (joint with Mobile Systems Programming on Tuesdays 14.15-16 in T2
- Three assignments as pair-work (or alone)
- Final exam on May exam period
- Course feedback

Lecture Schedule

Date ▲	Week	Day	Time	Location	Topic
17 Jan 12	3	Tue	12:15-14:00	T2	Intro and practicalities
24 Jan 12	4	Tue	12:15-14:00	T2	XML, JSON
24 Jan 12	4	Tue	14:15-16:00	T2	Android
31 Jan 12	5	Tue	12:15-14:00	T2	Rest, Web Services, Mashups
31 Jan 12	5	Tue	14:15-16:00	T2	Windows Phone 7
07 Feb 12	6	Tue	12:15-14:00	T2	Web1 (Reaktor)
07 Feb 12	6	Tue	14:15-16:00	T2	iOS (Juha-Matti Liukkonen, Symbio)
14 Feb 12	7	Tue	12:15-14:00	T2	Web2 (Reaktor)
21 Feb 12	8	Tue	12:15-14:00	T2	Web3 (Reaktor)
28 Feb 12	9	Tue	12:15-14:00	T2	HTML5 (Claudio Riva, Nokia)
08 May 12	19	Tue	12:15-14:00	T2	Summary & conclusions

Study materials for the course

- The course loosely follows the book
 - Leon Shklar, Rich Rosen, Web Application Architecture: Principles, Protocols and Practices, 2nd edition, Wiley
- Lecture slides and handouts, scientific papers

Assignments

- XML Schema
 - Deadline February (to be specified).
- Facebook and Google APIs
 - Deadline March (to be specified).
- Mobile platform
 - On WP7, iOS, Android (choose your favorite)
 - Deadline April (to be specified)

Assignment Principles

- Develop the code
- Test in real environment or emulator (mobile platform assignment, possibly some devices can be borrowed)
- Write a compact report (target size 2 pages)
 - Use case
 - Architecture
 - Ideas what could be done next
- Return by the deadline using the specified return mechanism
- More detailed instructions to be provided
- If you use code from web sources mark clearly what you have borrowed and from where

Signup for assignments by 25.1.

- For the group registration, send one email per group as follows.

- sender: one of the students

recipient: T-110.5140@tkk.fi (course email address)

cc: the other student

subject: group registration 2012

body:

12345A Name email

23456B Name email

Exam

- Essay questions
 - Last year answer three questions out of four
- Remember that an essay answer is a complete written composition showing your understanding of the topic
 - It is not enough to reproduce the same bullet points that the lecture slides have

Score

- Exam 50%
- Assignments 50%
- Exceptionally well executed assignments improve the final score
 - Bonus points of assignments

Questions / discussion