## Welcome!

# Today's lecture:

- Introduction to INF5750
- Practical information
- Free and Open Licensing (Prodromos Tsiavos)

## **Course content**

## **Main Part:**

Intensive introduction to open source java web development (methods, architectures, tools, and frameworks)

-> Through lectures, assignments and participation in a real life open source sw development project: HISP

## Other topics:

- Open Source licensing
- Global software development

(Distributed development, online collaboration, and global-local tensions. Case studies from the field and practical experiences through project work.)

- Open source in commercial software development (guest lecturers, possibly ObjectWare and Arktekk)
- Open source software in public sector (guest lecturers, possibly Accenture)

## Lecturers:

Lars Helge Øverland (larshelg)
Ola Hodne Titlestad (olati)
Jørn Braa (jbraa)
+ Various guest lecturers

## Lab assistants:

Anders Gjendem (andegje)
Jan Henrik Øverland (janhov)

### **Evaluation**

- 2 individual assignments (February 5, February 27)

- 5 project deliveries (group work)
(4 milestones and 1 final release: March 19, April 11, May 2, May 23, June 13)

- 1 individual essay (June 1)

- Pass / not pass
- Every deadline must be met to continue in the course!
- Assignments 1 and 2 can be reused from previous attempts.

#### More information here:

http://www.uio.no/studier/emner/matnat/ifi/INF5750/v08/pensumliste.xml

## Textbooks and other references

#### 2 recommended books:

Better, Faster, Lighter Java - Justin Gehtland, Bruce A. Tate, 2004. O'Reilly. Provides a good introduction to the field of open source java development incl. methodologies and specific technologies (Spring and Hibernate). All of you should read this.

## Expert One-on-One J2EE Development without EJB - Rod Johnson, Juergen Hoeller, 2004

(Selected chapters from this book (Ch. 3,6,7,10,13,14). Provides a thorough introduction to Spring and the concept of lightweight frameworks

### **Alternative references (free):**

- Spring in Action sample chapter (a Spring jump start, recommended!) (http://www.manning.com/walls3/sample-ch01.pdf)
- Spring framework documentation (official reference manuals)
   (http://www.springframework.org/documentation)
- Inversion of Control Containers and the Dependency Injection pattern, Martin Fowler (<a href="http://www.martinfowler.com/articles/injection.html">http://www.martinfowler.com/articles/injection.html</a>)

#### More references here:

http://www.uio.no/studier/emner/matnat/ifi/INF5750/v08/pensumliste.xml

## Labs

## Place:

The MMCL lab, research park (FP2, room 4-379, How to get access?)

## Time:

Group 1 - Monday 10:15-12

Group 2 - Tuesday 10:15-12

Approx. 15-20 students per group

**Bring your laptop** if you have one (only 12 desktops in the lab) The lab is available outside these hours as well.

## Project work (March 10 – June 13)

- 2-5 students per group
- Global software development using open source tools and frameworks and in an open process
- Develop a solution or prototype to be used in a real life open source project (HISP)
- Interact with HISP developers in Norway, India, Vietnam, and Ethiopia, and users in India, Vietnam, Ethiopia, Zanzibar, Sierra Leone, Malawi, Mozambique ++
- 5 deliveries, 4 milestone releases and 1 final release. Detailed requirements and the roadmap will be defined by the groups themsleves based on initial requirements and guidance from lab assistants/lecturers.
- Focus on wiki-based documentation (requirements, design, future work, developer and user manuals), the code itself, and the use of collaborative tools (Trac issue tracker and wiki, and subversion for version control.

## **Detailed teaching Plan**

28.01	Introduction & Free and Open Licensing	Ola Hodne Titlestad and Prodromos Tsiavos
04.02	Revolution OS	Film (http://www.revolution-os.com/)
08.02 (Friday!)	Subversion and Maven	Lars Helge Øverland
11.02	Spring 1/3 and Hibernate	Lars Helge Øverland
18.02	Spring 2/3 and JUnit	Lars Helge Øverland
25.02	HISP and DHIS	Ola Hodne Titlestad
03.03	DHIS 2	Ola Hodne Titlestad
10.03	Hibernate 2/2 and Spring 3/3	Lars Helge Øverland
31.03	WebWork and Web frameworks	Torgeir Lorange Østby
ТВА		