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Module Description  
Java Enterprise Edition and Design Patterns  
JEE

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## 1 Identification

|                  |                                     |
|------------------|-------------------------------------|
| Progresscode:    | JEE                                 |
| Phase:           | Semester 7                          |
| Workload:        | 84 hours / 3 ECTS credit points     |
| Lecturing weeks: | 14 weeks                            |
| Total time:      | 27. august 2007 – 21. december 2007 |

## 2 Goals

Students will gain basic knowledge of essential features and technologies that are part of the Java Enterprise Edition. Important concepts will be presented and exercised during practical work in the computer laboratories. The students know how to develop, execute and test within a professional development environment. The following topics/technologies will be covered within the module:

- Enterprise Java Beans 3.0
- Web Services
- Architectural Design Patterns
- Development and Deployment of JEE Applications
- Basic Application Server configuration (JBoss 4.2)

The technologies used during the course are all available for free. 'Free' in the sense of free beer as well as in the sense of free Software.

## 3 Competences

The module makes a contribution to the following qualifications: B1, B3, B4, B5, A5

## 4 Prerequisite modules

PRO2 (Programming in Java 2), PRJ22 (Project with JSP/Servlets/JavaBeans/JDBC), MOD1

## 5 Resources

- <http://java.sun.com/javaee/>
- <http://wiki.jboss.org/wiki/Wiki.jsp?page=JBossApplicationServer>
- B. Burke, R. MonsonHaefel: Enterprise JavaBeans 3.0, ISBN13: 9780596009786
- D. Alur, J.Crupi, D. Malks: Core J2EE Patterns, ISBN13: 9780131422469

## 6 Time planning and schedule

| Week       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |     | 8 | 9 | 10 | 11 | 12 | 13 | 14 |     | Total |
|------------|---|---|---|---|---|---|---|-----|---|---|----|----|----|----|----|-----|-------|
| Lecture    | 2 | 2 | 2 | 2 | 2 | 2 | 2 |     | 2 | 2 | 2  | 2  | 2  | 2  | 2  |     | 28    |
| Laboratory | 2 | 2 | 2 | 2 | 2 | 2 | 2 |     | 2 | 2 | 2  | 2  | 2  | 2  | 2  |     | 28    |
| Self Study | 1 | 1 | 1 | 1 | 1 | 1 | 1 |     | 1 | 1 | 1  | 1  | 1  | 1  | 1  |     | 14    |
| Exam Prep. |   |   |   |   |   |   |   | 6.5 |   |   |    |    |    |    |    | 6.5 | 13    |
| Exam       |   |   |   |   |   |   |   | 1   |   |   |    |    |    |    |    | 1   | 2     |
| Total Time | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 7.5 | 5 | 5 | 5  | 5  | 5  | 5  | 5  | 7.5 | 85    |

This module consists of self study, lectures and practical work. The assignments of the lab work are synchronized with the course of the lectures. Presence of all participating students during the practical work is obligatory, an attendance list will be maintained. In case of illness etc. you have to report to the tutor in advance.

The assignments of each week have to be presented to the tutor in the following week.

## 7 Assessment

- At the end of each quarterter, there will be a written examination (mark q1 and q2)
- At the end of each quarterter you will receive a mark for your practical work (mark p1 and p2)
- The average of the "practical" marks counts for 40%, and the average of the exam marks counts for 60%.
- Final mark:

```

if ( ((q1+q2)/2 >= 3.5) and ((p1+p2)/2) >=5.5 {
    final_mark = 0.6*(q1+q2)/2 + 0.4*(p1+p2)/2;
} else {
    final_mark = null;
}

```

- Remark: Eventually a repetition exam can be done. The mark replaces (q1+q2) in case it is better.

```
final_mark = null
```

,means you don't get a final mark.

## 8 Equipment

- For the lectures: a room with beamer with laptop connection.
- For the practical work: computer laboratory with standard PCs, min. 1 computer with server capabilities

## **9 Course evaluation**

At the end of the module there will be an evaluation with the intention to continuously improve the quality of the module. Remarks and feed back will be discussed and integrated into the module if appropriate.