

Exercises in Information System Development

Syllabus Number

3G326

Special Subjects

Elective 1 credit

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1. Course Description

In this course, we learn techniques to develop a web application. From the viewpoint of system architecture, a web application is categorized to server side and client side. We learn the techniques through server side web application development practice that includes relational database systems and adopting software frameworks.

This class is related to DP2 and DP4C.

2. Course Objectives

Learners will be able to:

- understand and explain about web applications.
- understand web application development techniques using Java and implement it using reference documents.
- develop programs using relational database system and O/R Mapper.
- develop web applications using software frameworks.

3. Grading Policy

The students will be evaluated at the following rate: essential subjects are 65%, optional subjects 20% and self check Tests 15%.

4. Textbook and Reference

Textbook

掌田津耶乃 EclipseではじめるJavaフレームワーク入門 第5版 Maven/Gradle対応 秀和システム、ISBN-10:4798046396

Reference

株式会社NTTデータ Spring徹底入門 Spring FrameworkによるJavaアプリケーション開発 翔泳社、ISBN-10:4798142476

松浦 健一郎、司 ゆき 基礎からのサーブレット/JSP 新版 SBクリエイティブ、ISBN-10:4797389451

5. Requirements(Assignments)

Preparation (About 0.5 to 1.5 hours):

Teaching materials are provided on LMS before classes. Learners have to read this as preparation learning. Also, learners have to take self check tests and implement sample programs on these contents for their understanding.

Review (About 1.5 hours):

To understand deeply, learners have to implement a programs of optional subjects or extend programs which includes original ideas.

6. Note

Learners have to take and understand following courses: each course of programming, Database Systems and Web Technology.

This course is a required course, and relates to the mid term 6-3 of learning attainment targets for the JABEE program.

7. Schedule

Exercise for Web Application Development 1 (Servlet, JSP)

Exercise for Web Application Development 2 (DAO, Hibernate+JPA)

Exercise for Web Application Development 3 (JPQL)

Exercise for Web Application Development 4 (Introduction for Spring MVC)

Exercise for Web Application Development 5 (Web Forms, Page Transition using Spring MVC)

Exercise for Web Application Development 6 (Form Validation using Spring MVC)

Exercise for Web Application Development 7 (Implementation DAO)

General Exercise

*There are no lectures after the 9th class.