



# Web Application Development

HCM International University  
School of Computer Science and Engineering  
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# Lecturer

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# Description

- Introduce to web programming models and concepts, focused on J2EE
- Provide the knowledge of basic web design
- Train core web technologies of J2EE
- Equip the students with the skills to design and implement a web-based application
- Experience in writing web-based programs in the J2EE framework

# Context

- **You have learned:**
  - Programming in Object-Oriented Program
  - Data structure in Data Structure and Algorithms
  - Application design in OOAD
  - Database design in Principles of Database System
- **You will learn:**
  - Develop Web applications with all learned knowledge on the J2EE framework in “this course”
  - Process of development applications in industry in course Software Engineering
  - Management projects with Software Project Management

# Learning outcome

- Have knowledge and understanding the basics of web programming models and techniques
- Be able to develop some simple applications
- Manage core techniques of J2EE
- Obtain the essential skills in designing and developing web-based applications

# Necessity

- One of most popular jobs in Vietnam
- Essential skills to develop applications

# Requirements

- This is one of advanced courses, so it has a fast pace and requires much effort spending *outside of class time*
- Students are expected to attend every class section on time, finish exercises from the last section and do in-class exercises
- Students have to finish their assignments in time.
- If you cannot complete an assignment, contact the instructor/lab tutor (BEFORE THE DUE DATE) with acceptable reason
- Tests are to be taken at the day and time scheduled. DO NOT copy from another student.

# Resources

- Textbooks
  1. **Core Web Programming.** Second Edition, by Marty Hall and Larry Brown, Prentice Hall, 2001
  2. **Core Servlets and JavaServer Pages™, Volume 1: Core Technologies,** Second Edition. Marty Hall, Larry Brown, Prentice Hall PTR, 2003
  3. **Beginning J2EE 1.4: From Novice to Professional.** James L. Weaver, Kevin Mukhar, and Jim Crume, Apress, 2004
  4. **The Struts Framework - Practical Guide for Java Programmers.** Sue Spielman, Morgan Kaufmann Publishers, 2003.
  5. **Ajax in Action.** Dave Crane, Eric Pascarello, Darren James, 2006.
  6. ***Hand-outs***

# Other resources

- **For more information:**
  - <http://125.234.238.107>
  - <http://10.8.52.22>
- **Recommend website for learn:**
  - W3School

# Activities

- **Lectures:**
  - 11 sessions, 4 teaching periods each
  - Assignments/Homeworks + Presentations
- **Labs:**
  - 11 sessions, 4 periods each
- **Marking scheme:**
  - Final Exam (50%),
  - Lab + Presentation + Assignment (30%),
  - Mid Exam (20%)

# Lectures

- Should prepare in advance
- Provided exercises at the end of each lecture

# Agenda

Week	Section (Handout)	Reading
1	Session 0 - Introduction Session 1 - Introduction to HTML	Ref1, chaps 1-4
2	Session 1 (cont.) Session 2 - Introduction to J2EE	Ref3, chap 1
3	Session 3 – Servlet	Ref2, chaps 3-6
4	Session 3 (cont.) Session 4 – Web Session	Ref2, chaps 7-9
5	Session 5 – Java Server Page	Ref2, chaps 10-12
6	Session 6 – Java Bean and MVC	Ref2, chaps 13-15
7	Session 8 – XML & XSLT	Ref1, chaps 23
8	Session 9 – Java Script	Ref1, chaps 24
9	Session 11 – Struts	Ref4
10	Session 10 – Ajax	Ref6
11	Review	

# Labs

- **Software:**
  - Web Server (Apache Tomcat, Glassfish)
  - IDE (Netbeans, Eclipse)
- **Working:**
  - Only 11 sessions
  - Finish all required exercises for each lab
  - Attend labs to get advices on your assignments
  - Work hard on your exercises and assignment topic

# Mini projects

- **Working in group, 2 or 3 students/group**
- **2 types of topics:**
  - Select topics provided
  - Your thesis topic
- **Work at home and in labs**
- **WHAT ARE WE LOOKING FOR?**
  - Working demo
  - Document
  - Implementing various database functionalities (inputting the data, querying data, updating, etc.)
  - Present result in the class

**Thank for your listening  
Question?**