FIT5042 Enterprise application development for the web - Semester 2, 2012

This unit provides students with an understanding of the design and development of systems that support the large enterprise in a web-based environment. Students will learn of the theoretical issues that need to be considered by the enterprise and how they can affect the development of the enterprise application. A number of techniques will be introduced as the technological means to build such an application with specific emphasis on the Java EE technology.

Mode of Delivery

Caulfield (Evening)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload

Students will be expected to spend a total of 12 hours per week during semester on this unit as follows:

- Lectures: 2 hours per week
- Tutorials/Lab Sessions: 2 hours per week per tutorial
- and up to an additional 8 hours in some weeks for completing lab and project work, private study and revision.

Unit Relationships

Prohibitions

CSE5060

Prerequisites

Recommended knowledge: Students undertaking this subject are expected to have a sound understanding of the concepts of the object oriented programming language, Java.

Chief Examiner

Dr Chris Ling

Campus Lecturer
Caulfield

Michael Smith

Consultation hours: To be advised
Academic Overview

Outcomes

At the completion of this unit students will:

- understand various issues pertaining to enterprise software architecture on the web;
- acquire techniques to develop enterprise applications using the Java programming language;
- discover various advanced Java technologies used to build web applications for the enterprise;
- learn to competently use the advanced Java libraries to build a medium-size web application for the enterprise.

Graduate Attributes

Monash prepares its graduates to be:

1. responsible and effective global citizens who:

   a. engage in an internationalised world
   b. exhibit cross-cultural competence
   c. demonstrate ethical values

critical and creative scholars who:

   a. produce innovative solutions to problems
   b. apply research skills to a range of challenges
   c. communicate perceptively and effectively

Assessment Summary

Examination (3 hours): 50%, In-semester assessment: 50%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Test 1</td>
<td>10%</td>
<td>Week 5, Monday 20 August 2012</td>
</tr>
<tr>
<td>Unit Test 2</td>
<td>10%</td>
<td>Week 9, Monday 17 September 2012</td>
</tr>
<tr>
<td>Enterprise Application Assignment</td>
<td>30%</td>
<td>Week 12, Friday 19 October 2012</td>
</tr>
<tr>
<td>Examination 1</td>
<td>50%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>

Teaching Approach

Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.
Feedback

Our feedback to You

Types of feedback you can expect to receive in this unit are:

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Interviews
- Test results and feedback

Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through SETU, Student Evaluation of Teacher and Unit. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, and on student evaluations, see:
http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this unit

Over the years in which the unit has been running, students have reported an overall satisfaction with the content and presentation of the unit's material.

The unit's content this semester has been updated in keeping with the changing technologies.

If you wish to view how previous students rated this unit, please go to

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

You will need access to:

- Java SE 6
- NetBeans IDE with Java EE support and Glassfish application server

This software is freely available online to download. They will also be available in University computer labs.

The details of these resources will be specified in the weekly study guides.
Recommended Resources

(1) The Java EE 6 Tutorial. This is the official Java EE 6 Tutorial from Oracle. We will use a number of chapters and example codes from the Tutorial.

It is available at: http://download.oracle.com/javaee/6/tutorial/doc/

(2) The Java Tutorial available at http://download.oracle.com/javase/tutorial/
# Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>No formal assessment or activities are undertaken in week 0</td>
</tr>
<tr>
<td>1</td>
<td>Unit Overview and Enterprise Architecture Concepts</td>
<td>NOTE: Tutorial labs commence in WEEK 1 of semester</td>
</tr>
<tr>
<td>2</td>
<td>Java EE Application Architecture</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Introduction to JavaServer Faces Technology</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Getting started with simple web applications</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Developing Web Pages with JavaServer Faces Technology</td>
<td>Unit Test 1 during the 1st hour of the normal lecture period on Monday 20 August 2012</td>
</tr>
<tr>
<td>6</td>
<td>Introduction to Enterprise JavaBeans</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Session Beans</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Example Applications using EJBs</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Introduction to Java Persistence</td>
<td>Unit Test 2 during the 1st hour of the normal lecture period on Monday 17 September 2012</td>
</tr>
<tr>
<td>10</td>
<td>More Features of Java Persistence</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Example Applications with Persistence</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Bringing it all together to develop enterprise applications</td>
<td>Enterprise Application Assignment due Friday 19 October 2012</td>
</tr>
<tr>
<td><strong>SWOT VAC</strong></td>
<td></td>
<td>No formal assessment is undertaken in SWOT VAC</td>
</tr>
</tbody>
</table>

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.*
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at http://lib.monash.edu/tutorials/citing/

Assessment Tasks

Participation

• Assessment task 1

  Title: Unit Test 1
  Description: A written multiple choice test on the coding, principles and technologies introduced up to and including Week 4 of the semester.

  This assessment is due during the 1st hour of the normal lecture period. No alternative arrangements will be allowed other than those granted as a result of special consideration.

  To apply for special consideration refer to the link provided under ‘Extensions and penalties’ at the end of this section.

  Weighting: 10%

  Criteria for assessment: Correct answers to questions, demonstrating understanding of learning material.

  Further detailed information will be available in the week preceding the unit test.

  Due date: Week 5, Monday 20 August 2012

• Assessment task 2

  Title: Unit Test 2
  Description: A written multiple choice test on the coding, principles and technologies introduced up to and including Week 8 of the semester.

  This assessment is due during the 1st hour of the normal lecture period. No alternative arrangements will be allowed other than those granted as a result of special consideration.

  To apply for special consideration refer to the link provided under ‘Extensions and penalties’ at the end of this section.

  Weighting:
Criteria for assessment:
Correct answers to questions, demonstrating understanding of learning material.

Further detailed information will be available in the week preceding the unit test.

Due date:
Week 9, Monday 17 September 2012

• Assessment task 3

Title:
Enterprise Application Assignment

Description:
In this assignment, you will develop a substantial enterprise application based on what you have learned in the entire unit.

More details will be made available in the assignment specification.

Weighting:
30%

Criteria for assessment:
This is an individual assignment and is to be entirely your own work.

Submission will be via Moodle.

The assignment will be marked against criteria of correctness and compliance with the functional requirements outlined in the specification, to be released during semester, and the student’s demonstrated understanding of their submitted work. Assessment of the submitted program, code and functionality will be by interview. Interview times will be arranged in the tutorial labs immediately preceding the submission deadline. It is each student’s responsibility to attend the lab and obtain an interview time. Students who do not attend an interview will receive 0 marks for the assignment.

At the interview students can expect to be asked to run their submitted program to demonstrate its functionality. They will also be asked explain their code, their design, discuss design decisions and alternatives and modify their code as required. Marks will not be awarded for any section of code or functionality that a student cannot explain and/or modify satisfactorily. (The marker may delete excessive comments in code before a student is asked to explain that code).

Further detailed assessment criteria will be available with the assignment specification

Due date:
Week 12, Friday 19 October 2012

Examinations

• Examination 1

Weighting:
50%

Length:
3 hours

Type (open/closed book):
Closed book
Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at http://www.infotech.monash.edu.au/resources/student/forms/. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

Extensions and penalties

Submission must be made by the due date otherwise penalties will be enforced.


Returning assignments

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.
Other Information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and to provide advice on how they might uphold them. You can find Monash’s Education Policies at: http://policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Plagiarism (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html)
- Special Consideration (http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html)
- Grading Scale (http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html)
- Discipline: Student Policy (http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html)
- Academic Calendar and Semesters (http://www.monash.edu.au/students/key-dates/)
- Orientation and Transition (http://www.infotech.monash.edu.au/resources/student/orientation/); and
- Codes of Practice for Teaching and Learning (http://www.policy.monash.edu/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-learning.html)

Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at www.monash.edu.au/students. For Sunway see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/

The Monash University Library provides a range of services and resources that enable you to save time and be more effective in your learning and research. Go to http://www.lib.monash.edu.au or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at http://www.lib.monash.edu.my/. At South Africa visit http://www.lib.monash.ac.za/.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: http://monash.edu/equity-diversity/disability/index.html
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway
Reading list


The full text is available online through the Monash library site at:

http://library.monash.edu.au/vwebv/holdingsInfo?searchId=3084&recCount=20&recPointer=5&bibId=2977712