MONASH University

FIT5032
Internet applications development

Unit Guide

Semester 2, 2009

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FIT5032 Internet applications development - Semester 2, 2009

Chief Examiner:

None provided

Lecturer(s) / Leader(s):

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Introduction

Welcome to FIT5032 for Semester 2, 2009. This 6 point postgraduate unit has been designed to provide you with an understanding of XML, ASP.NET and JavaScript.

Unit synopsis

This unit has been designed to provide students with skills to develop Internet Applications with a focus on enabling web page functionality through scripting. The unit presents an overview of multi-tier web applications and the technologies that operate in different layers of typical web architectures. The unit teaches a range of web application development technologies focusing on state-of-the-art object oriented scripting languages for mobile and conventional web applications. Techniques for scripting on the client side (e.g. JavaScript) and scripting on the server side.

Learning outcomes

At the successful completion of this subject students will have:

1. an understanding of web environments and their components,
2. an understanding of the principles of object oriented scripting and the knowledge of the various uses to which scripting may be put;
3. the knowledge and skills to implement web applications, in an applications development environment
4. the skills to write scripts to perform a variety of tasks in WAP and conventional web page environments; and
5. an understanding of the principles of large scale, and small scale, web site development including an understanding of advanced design principles,
6. an understanding of the uses of mark-up languages and meta-languages in structuring data, particularly in a web context,
7. the knowledge and skills to implement web sites varying size and complexity, using XHTML, and XML
8. a professional attitude towards the development of web based information systems

Contact hours

2 hours lectures/week, 2 hours tutorials/week

Workload

2 hour lecture 2 hour tutorial 2 hours personal study time per one hour of contact time in order to satisfy the study and assignment expectations

Unit relationships

Prerequisites

For MAIT students, FIT9017, FIT9018, FIT9019, FIT9030, FIT9020 and FIT4037.
Recommended knowledge: It is assumed that all students have a strong knowledge of Java programming

Relationships

Before attempting this unit you must have satisfactorily completed

For MAIT students, FIT9017, FIT9018, FIT9019, FIT9030, FIT9020 and FIT4037.

, or equivalent.

It is assumed that all students have a strong knowledge of Java programming

You may not study this unit and

CPE5011 CPE4003 in your degree.

Teaching and learning method

This unit will be delivered via one - 2 hour lecture and one - 2 hour tutorial per week. Lecturers may go through specific examples, give demonstrations and present information that contains theoretical concepts. In tutorials students will complete practical exercises which will aid in their understanding of the content and their ability to complete assignment work. The tutorials are particularly useful in helping student consolidate concepts and practise their problem solving skills.

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system: http://allocate.cc.monash.edu.au/

Unit Schedule

Week	Topic	Key dates
1	Introduction to XML.	
2	XML Schema and their uses. Simple types, complex types and validation	
3	Introduction to XSLT and it's uses	
4	XSLT. Using XPath. Test expressions and functions. Cascading Stylesheets	
5	What are Virtual Directories, Setting Up a Virtual Directory, Using a Virtual Directory. HTTP protocol reviewed. HTML forms reviewed. Server controls.	Assignment 1 due Fri @2pm
6	C# basics: data types and operators; control structures and functions. Event driven programming and postback. Objects in C#. Static class members and class relationships.	
7	Namespaces and core objects. State handling. Objects and structured data. Using data sources. Reading data with ADO.NET objects. Manipulating data	
8	Manipulating XML as a data store. Navigating the nodes. Types of server controls. Page lifecycles and using server controls. Control families and data templates.	
9	Components and user controls. Code behind. .NET Assemblies. Custom Server Controls. Web services. Building simple services. Deploying services	
10	Configuration. Optimisation. Authentication. Sending email, Accessing File System: Uploading, Reading, Creating, Copying, Deleting files. Creating graphics with ASP.NET	Assignment 2 due Fri @ 2pm
Mid semester break		
11	Web pages for mobile devices. Navigating a mobile site. List controls and data binding. Validation controls. Rich controls. Styling page output. Writing controls. New device support.	
12	Ajax defined, using Ajax. Using Ajax with ASP.NET, using Ajax with ASP.NET and databases	Assignment 3 due Fri @ 2pm
13	Revision	

Unit Resources

Prescribed text(s) and readings

No texts are required

Recommended text(s) and readings

Required software and/or hardware

All required software is loaded in computer labs.

Software for student home use may be:

- downloaded from http://walkabout.infotech.monash.edu.au/walkabout/cpe5011
- purchased at academic price at good software retailers

Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to **n** hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

The FIT5032 website, http://walkabout.netcomp.monash.edu.au/walkabout/FIT5032 where lecture materials, audio lectures, tutorial exercises, assignment specifications, sample exam and supplementary materials are posted

Assessment

Overview

Assingments: 60%, Final examination: 40%

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 44% then a mark of no greater than 44-N will be recorded for the unit.

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- **Assignment task 1**

  Title:
  Assignment 1 - XML
  Description:
  Weighting:
  20%
  Due date:
  21/8/2009
  Remarks:
  Assignment must be submitted to student server by due date and time

- **Assignment task 2**

  Title:
  Assignment 2 - ASP.NET
  Description:
  Weighting:
  30%
  Due date:
  25/9/2009
  Remarks:
  Assignment must be submitted to student server by due date and time

- **Assignment task 3**

Title:
Assignment 3 ASP.NET Mobile
Description:
Weighting:
10%
Due date:
16/10/2009
Remarks:
Assignment must be submitted to student server by due date and time

Examination

- **Weighting:** 40
  Length: 2 hours
  Type (open/closed book): Closed book

See Appendix for End of semester special consideration / deferred exams process.

Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms:
http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Late assignment

Late assignments are not accepted for correction, and zero marks are awarded accordingly. The only exception to this is in the case of illness or other serious cause. In any such cases, proper third party documentation (e.g. a doctor's certificate) would have to be supplied. Where a doctor's certificate is supplied, then an extension may be allowed for time specified on the doctor's certificate.

Return dates

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

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams