



FIT5192

Enterprise and Internet Applications Development

Semester 2B - 2018
Suzhou, China

Dr. Murray Mount
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Lecturer's Details

- Dr. Murray Mount
- Contact Details
 - murray.mount@monash.edu
- Consultation
 - 11am-12pm every weekday
(Monday 23 July – Friday 24 August 2018)
 - Room 7206

Two Modules

- Enterprise Applications Development for the Web Using Java EE Technologies
- Internet Applications Development Using ASP.NET

Learning Objectives

On successful completion of this unit, students should be able to:

1. Analyse various web environments and their components, and assess issues pertaining to enterprise software architecture on the web;
2. Analyse the principles for developing web applications of varying size and complexity, and apply advanced design principles;
3. Interpret and test the key features of programming languages which are commonly used for developing enterprise level web applications;
4. Describe various advanced Java technologies used to build web applications, and competently apply the advanced Java libraries to build a medium-size web application for the enterprise;
5. Describe various advanced ASP.NET technologies used to build web applications, and apply the advanced C# libraries to build a medium-size website using the MVC design pattern;
6. Analyse and critique the key technological issues confronting developers building web applications.

Module One - Lecture

Tutorial

L1: Unit Overview and Enterprise Architecture Concepts

Java revision

L2: Java EE Application Architecture

Deploying a Java EE application

L3: Introduction to Graphical User Interface

GUI and event handling

L4: Introduction to Java Persistence

Persistence API – Database connectivity

L5: Introduction to JavaServer Faces

Creating a basic JSF web application

L6: Developing Web Interfaces with JavaServer Faces

Expanding on JSF web applications

L7: Advanced Applications of Java Persistence

Advanced applications of Java Persistence

L8: Introduction to Enterprise JavaBeans

Java EJBs

L9: Advanced Applications of Enterprise JavaBeans

Advanced EJBs

L10: Working with Web Services (Java-RSWS)

Web services

L11: Securing Enterprise Web Applications

JEE security

L12: Introduction to Backend as a Service, API Server, Asynchronous Programming and JavaScript frameworks

Assignment 1 due Tuesday 7 August 2018 at 23:55

Module Two - Lecture

Tutorial

L1: Introduction to Web database technologies, ASP.NET and Visual Studio

**Get to know Visual Studio;
Demonstrations and interviews for Assignment 1**

L2: Internet applications development, Usability and website design

Demonstrations and interviews for Assignment 1

L3: Introduction to C#

Exercise on C# basics: data types and operators

L4: HTML form limitation and ASP.NET server controls - Event driven programming and Postback

Exercise on ASP.NET server controls;

L5: ASP.NET Server controls - Master pages, Themes and Skins

Exercise on Master pages, Themes and Skins

L6: ASP.NET Server controls - Validation, Navigation and Login controls

Exercise on Validation, Navigation and Login controls

L7: Creating a simple MS Access database, Using datastores

**Exercise on ASP.NET validation controls
Using datastores**

L8: ASP.NET data source controls

Multiple exercises on using data source controls

L9: Introduction to ASP.NET MVC

Creating a simple web site using ASP.NET MVC

L10: Creation of a simple web site using ASP.NET MVC

Working on Assignment 2

L11: ASP.NET MVC extensions: jQuery, jQuery UI and jQueryPlugins

Working on Assignment 2

L12: Unit Revision and Discussion (covering both modules)

**Unit revision and discussion
Assignment 2 due Tue 21 August 2018 at 23:55**

Assessment

- Assignments (**50%**)
 - Assignment 1 (25%): Develop a web application in Java, similar to the prototype built in the module one exercises but on a larger scale
 - **Individual task**
 - Due **Tuesday 7 August 2018 @23:55pm** and demos in the following tutorials
 - Assignment 2 (25%): Website development in ASP.NET
 - **Group task** (Maximum Two people for each group)
 - You can choose to do this assignment as an individual work
 - Due **Tuesday 21 August 2018 @23:55pm** (demos may be required)
- Unit Exam(3 hours) (**50%**)
 - **@9-12pm, Friday 24 August 2017 (Room : To Be Advised)**
 - A practice exam paper will be made available in the last week of teaching and will be discussed in the revision lecture

Hurdle Requirements

To pass this unit:

- 40% or more in the unit's total non-examination assessments, and
- 40% or more in the unit's examination, and
- An overall mark of 50% or more

Extensions

- Extensions will only be considered for students who submit a **Special Consideration** application form to the lecturer.
 - Must be made by the due date otherwise penalties will be enforced.
- More information can be found in the 'Extensions and penalties' section of the unit guide.
 - You should aim to complete and submit your assignments before the deadline.
 - Being sick on the due date is not a valid excuse!

Plagiarism Policy

- **All individual assessments in this unit**
 - Must be entirely your own work
 - Must FULLY understand the work you submit
 - Can explain it
 - Can rewrite it on the spot
- **Zero Tolerance!**
 - Any assignments found to have been plagiarized will be awarded zero marks.
 - Any student found involved in plagiarism will be reported to their course leader and may be subject to a formal disciplinary process.

Plagiarism Policy

- **Guidelines for using external programming libraries and tutorials**
 - When using external resources or libraries for your programming assessments, always provide code comments referencing the author of the code and how it was implemented into your project.
 - General rule: If you didn't write the code, reference it!

Resources: Moodle

- Unit information
- Lecture notes
- Tutorial notes
- Source codes of examples
- Links to useful sources
- Assignment specifications
- Discussion Forums

Resources: Reading Material

- Supplementary textbooks
 - **The Java EE 7 Tutorial:** The official tutorial provided by Oracle that provides a good break down of the features present in the Java EE 7 platform
 - **Beginning Java EE 7:** Very easy to read and understand
 - **Professional ASP.NET 4 In C# and VB,** by Evjen B., Hanselman S., Rader D. (2010) Wrox Press Ltd. Birmingham, UK.
- Lecture Slides
- Selected Articles/Web Tutorials, links provided