MONASH University
Information Technology

FIT2076
Web-database interface

Unit Guide

Semester 2, 2015

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

Last updated: 29 Jul 2015

Table of Contents

FIT2076 Web-database interface - Semester 2, 2015

This unit provides students with the knowledge, understanding and skills required to develop an application system which uses a web interface to a back-end database. The unit assumes a sound basic knowledge of programming and database concepts and skills as developed in the introductory units in these areas. The emphasis in the unit is on mastery of the key concepts and the basic knowledge and skills required to build this kind of application. The unit will provide students with an awareness of the wide range of technologies which are used to support this kind of application, but will examine only a limited number of these technologies to demonstrate the key concepts and their application.

The unit will take a strongly practical focus in examining the technology issues involved, and highlight the key issues which a developer needs to address in developing applications of this kind for real-world systems.

Mode of Delivery

- Caulfield (Day)
- Malaysia (Day)

Workload Requirements

Minimum total expected workload equals 12 hours per week comprising:

(a.) Contact hours for on-campus students:

- Two hours of lectures
- One 2-hour laboratory

(b.) Additional requirements (all students):

- A minimum of 8 hours independent study per week for completing lab and project work, private study and revision.

See also Unit timetable information

Unit Relationships

Prohibitions

FIT2028, FIT2029, FIT3043, FIT3057

Prerequisites

One of FIT1002, FIT1008, FIT1035, FIT1040, FIT2034, FIT2071 or FIT2081 and one of FIT1004 or FIT2010

Chief Examiner

Ms Janet Fraser

Campus Lecturer

Caulfield

Janet Fraser

Consultation hours: Thu 10-12, Fri 2-4 - H7.77

Ali Alammary

Consultation hours: To be advised

Malaysia

Sylvester Olubolu Orimaye

Consultation hours: To be advised

Tutors

Caulfield

Ali Alammary

Consultation hours: To be advised

Kelvin Lai

Consultation hours: To be advised

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 the Student Evaluation of Teaching and Units (SETU) survey. 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, see:

www.monash.edu.au/about/monash-directions/ and on student evaluations, see: www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this Unit

Previous cohorts of students have indicated a desire for more and more detailed tutorial exercises to enhance their learning - new tutorial exercises have been added. Students have alos expressed a desire for this unit to use Moodle as the content deliverly system which will ow be the case.

If you wish to view how previous students rated this unit, please go to
https://emuapps.monash.edu.au/unitevaluations/index.jsp

Academic Overview

Learning Outcomes

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

- explain the need and importance for system developers to have skills in this area of IT applications;
- describe and compare the key basic technologies which underlie the development of web-database applications;
- evaluate and assess the key technological issues confronting developers building applications of this type;
- implement the key features of programming languages which are commonly used for developing web-database application;
- analyse, design, develop and implement a web-database application using a well-known programming language;
- evaluate and critique proposed web-database solutions to a business problem.

Unit Schedule

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	Web database concepts, web database technologies, web services, virtual directories. History of PHP	
2	Planning, SDLC, planning, stakeholders, determining client requirements, functional decomposition, prototyping, database design	
3	Usability and design. CSS, Bootstrpa, jQuery, HTML5	
4	Introduction to PHP, PHP and Web Servers and configuration	Assignment 1 Presentation during tutorial in Week 4. Assignment 1 Report due Friday 21 August 2015, 2pm
5	PHP basics. Embedding PHP into HTML, datatypes and language constructs	
6	Using PHP and datastored - Oracle & mySQL. PHP PDO	
7	Use of HTML forms. Executing SQL Inserts, Updates and Deletes with PHP and Oracle. Dropdown lists, multiple check boxes and text boxes.	
8	PHP security - LDAP & Cookies. Accessing the Web Server File System. File uploads.	
9	Introduction to AJAX. AJAX & PHP & Oracle	Assignment 2 due Friday 25th September, 2pm
10	Introduction to MVC Design. Purpose and advantages of MVC compared to Web Forms development. Introduction to CakePHP. Overview of CakePHP installation on different server platforms	
11	Using CakePHP to access Oracle, MYSQL and SQL Server databases.	
12	Using CakePHP to access the Web Server file system. Uplaoding files, sending email with CakepHP	Assignment 3 due Friday 23 October 2015, 2pm
	SWOT VAC	No formal assessment is undertaken in SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html

*Unit Schedule details will be maintained and communicated to you via your learning system.

Teaching Approach

Lecture and tutorials or problem classes

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

Assessment Summary

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

Assessment Task	Value	Due Date
Assignment 1: Analysis & Design	15%	Presentation during tutorial in Week 4. Report due Friday 21 August 2015, 2pm
Assignment 2: Construction - PHP	25%	Friday 25th September 2015, 2pm
Assignment 3: Construction - OO PHP	10%	Friday 23 October 2015, 2pm
Examination 1	50%	To be advised

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles
(http://intranet.monash.edu.au/infotech/resources/staff/edgov/policies/assessment-examinations/assessment-hurd

Academic Integrity - Please see resources and tutorials at
http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/

Assessment Tasks

Participation

- **Assessment task 1**

   Title:
   Assignment 1: Analysis & Design
   Description:
   Working in pairs, students will produce a solution proposal for a business. Students will be
   expected to give an in-class presentation which details their proposed solution to the
   described business problem. Students will be expected to mark and critique other groups
   presentations.
   Weighting:
   15%
   Criteria for assessment:

   - The quality and professionalism of the submitted report.
   - The quality and professionalism of the solution presentation and the quality of the
     arguments presented.
   - How well the proposed solution meets the needs of the client.
   - The degree to which students engage in tutorial activities - e.g. client interviews
     and critical assessment of other groups presentation.

   Students will be required to submit a work breakdown detailing each group member's
   participation.

   Marking guide will be available from Moodle
   Due date:
   Presentation during tutorial in Week 4. Report due Friday 21 August 2015, 2pm
   Remarks:
   Learning outcomes 1, 3, 5, 6

- **Assessment task 2**

   Title:
   Assignment 2: Construction - PHP
   Description:
   Working individually, students will create an OO PHP application which enables users to
   search for animals for a Pet Shop
   Weighting:
   25%

Criteria for assessment:

- ♦ The degree to which the submitted web-database application meets the clients requirements.
- ♦ The design quality and usability of the submitted application.
- ♦ How efficiently the code is written and the level and completeness of code documentation.

Students will be required to submit a work breakdown detailing each group member's participation.

Marking guide will be available from Moodle

Due date:

Friday 25th September 2015, 2pm

Remarks:

Learning outcomes 3, 4, 6

- **Assessment task 3**

Title:

Assignment 3: Construction - OO PHP

Description:

Working individually, students will create a CakepHP application which enables users to search for purchase and rental properties for a Real Estate firm.

Weighting:

10%

Criteria for assessment:

- ♦ The degree to which the submitted web-database application meets the clients requirements.
- ♦ The design quality and usability of the submitted application.
- ♦ How efficiently the code is written and the level and completeness of code documentation.

Marking guide will be available from Moodle

Due date:

Friday 23 October 2015, 2pm

Remarks:

Learning outcomes 4, 5, 6

Examinations

- **Examination 1**

Weighting:

50%

Length:

3 hours

Type (open/closed book):

Closed book

Hurdle requirements:

Students must obtain 40% to pass the examination component

Electronic devices allowed in the exam:

Assessment Requirements

> None
>
> **Remarks:**
>
> Details will made available during semester. Please confirm with Lecturer.

Learning resources

Monash Library Unit Reading List (if applicable to the unit)
http://readinglists.lib.monash.edu/index.html

Feedback to you

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

- Informal feedback on progress in labs/tutes
- Graded assignments without comments
- Interviews

Extensions and penalties

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

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process: http://www.monash.edu.au/exams/special-consideration.html

Returning assignments

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

Resubmission of assignments

Resubmission of assignments is not allowed.

Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-pla 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 electronic submission). Please note that it is your responsibility to retain copies of your assessments.

Online submission

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

Assessment Requirements

Examination material or equipment

Refer to http://walkabout.infotech.monash.edu.au/walkabout/fit2076

Details will made available during semester. Please confirm with Lecturer.

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:
www.policy.monash.edu.au/policy-bank/academic/education/index.html

Faculty resources and policies

Important student resources including Faculty policies are located at
http://intranet.monash.edu.au/infotech/resources/students/

Graduate Attributes Policy

http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.h

Student Charter

www.opq.monash.edu.au/ep/student-charter/monash-university-student-charter.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 http://www.monash.edu.au/students. For Malaysia see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/.

Monash University Library

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

Disability Liaison Unit

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

- Website: http://www.monash.edu/equity-diversity/disability/index.html
- Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Commuity Services at 03 55146018 at Malaysia
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Malaysia Campus