FIT5059
Advanced programming for database applications

Unit Guide

Semester 1, 2013

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: 04 Mar 2013

Table of Contents

FIT5059 Advanced programming for database applications - Semester 1, 2013

This unit is designed for students who wish to extend their programming abilities in developing relatively large database applications. An integrated system of significant size will be developed using the current industry standard software. Topics covered include the principal aspects of database development and applications, advanced queries, customising forms and professional reporting, business graphics, importing and exporting data, internet applications, debugging and error-handling security and system documentation

Mode of Delivery

- Caulfield (Evening)
- Gippsland (Off-campus)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratory/wk

Workload requirements

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

For on-campus students:
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.

Off-campus students generally do not attend lecture and tutorial sessions, however, you should plan to spend equivalent time working through the relevant resources and participating in discussion groups each week.

Unit Relationships

Prohibitions

BUS5410, BUS4410

Prerequisites

(FIT9004 or FIT9017) and (FIT9003 or FIT9019)
Knowledge of relational database principles, including SQL.

Chief Examiner

Associate Professor David Taniar

Campus Lecturer

Caulfield

Associate Professor David Taniar

Gippsland

Associate Professor David Taniar

Tutors

Caulfield

Kefeng Xuan (Jason)

Haidar Al-Khalidi

Academic Overview

Learning Outcomes

At the completion of this unit students will be able to:

- create a database system for practical application utilising forms, reports and graphics;
- understand the principal aspects of setting up a complete database application system;
- write complex queries using database query language;
- experience group work in building a complex database application system;
- produce a database system of professional quality.

Unit Schedule

Week	Activities	Assessment
0	Register for tutorials, and download/install the required software	
1	Topic 1 - SQL and Oracle Form Introduction	
2	Topic 2 - Data Block Forms (Basic)	
3	Topic 2 - Data Block Forms (Advanced)	
4	Topic 3 - PL/SQL Programming (Basic)	
5	Topic 3 - PL/SQL Programming (Advanced)	
6	Topic 4 - Custom Form (Basic)	
7	Topic 4 - Custom Form (Multiple Form)	
8	Topic 4 - Custom Forms (Tab Canvas)	Class Test: Thursday, 2 May 2013, 6-8pm
9	Topic 4 - Custom Forms (Stacked Canvas)	
10	Topic 5 - Menus	
11	Topic 6 - Advanced Programming	Assignment due date: Thursday, 23 May 2013, 6pm
12	Topic 6 - Advanced Programming	
	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.

Assessment Summary

Examination (3 hours): 60%; In-semester assessment: 40%

Assessment Task	Value	Due Date
Class Test	10%	Thursday, 2 May 2013, 6-8pm
Assignment	30%	Thursday, 23 May 2013, 6pm
Examination 1	60%	To be advised

Teaching Approach

Lecture and tutorials or problem classes

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

Assessment Requirements

Assessment Policy

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

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

Assessment Tasks

Participation

- **Assessment task 1**

   Title:
   > Class Test
   Description:
   > The test will cover Data Block Forms, PL/SQL, and Custom Forms.
   Weighting:
   > 10%
   Criteria for assessment:
   > 1. Understanding of SQL and PL/SQL
   > 2. Use of Data Block Forms and Custom Forms
   Due date:
   > Thursday, 2 May 2013, 6-8pm

- **Assessment task 2**

   Title:
   > Assignment
   Description:
   > Oracle Form Builder
   Weighting:
   > 30%
   Criteria for assessment:
   > 1. Completeness of each sub-system
   > 2. Correctness of each sub-system
   > 3. Testing results
   > 4. Technical requirements of the system specified in the assignment specification
   Due date:
   > Thursday, 23 May 2013, 6pm

Examinations

- **Examination 1**

  Weighting:
  > 60%
  Length:
  > 3 hours
  Type (open/closed book):
  > Closed book
  Electronic devices allowed in the exam:
  > None

Learning resources

Reading list

Morrison, J. and Morrison, M. (2005). Guide to Oracle 10g, 5th Edition, Cengage Learning, ISBN: 0619216298

Oracle Form Development for Database Applications, by Taniar & Lim, Publisher: Rinton Press, USA, ISBN 1-58949-055-X

Monash Library Unit Reading List
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 with comments
- Solutions to tutes, labs and assignments

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.infotech.monash.edu.au/resources/student/equity/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.

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 learning
system for this unit, which you can access via links in the my.monash portal.

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:

- Oracle Developer Suite (Form Builder)
- Oracle SQLPlus*

These are freely available to download from the following web addresses:

1. Oracle Database 10g Release 2 (10.2.0.4.0) Enterprise/Standard Edition
http://www.oracle.com/technetwork/database/10204-winx64-vista-win2k8-082253.html

2. Oracle Developer Suite 10g (10.1.2.0.2)
http://www.oracle.com/technology/software/products/ids/index.html

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

Key educational policies include:

- Plagiarism;
  http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html
- Assessment in Coursework Programs;
  http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-po
- Special Consideration;
  http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.ht
- 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/dates/
- Orientation and Transition; http://intranet.monash.edu.au/infotech/resources/students/orientation/
- Academic and Administrative Complaints and Grievances Policy;
  http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.h
- Code of Practice for Teaching and Learning;
  http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tead

Graduate Attributes Policy

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

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 Sunway 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 Sunway, 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.htmlTelephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Commuity Services at 03 55146018 at SunwayEmail: dlu@monash.eduDrop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus

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

Student feedback has shown this unit is well structured and no changes have been required for this semester.

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