



MONASH University
Information Technology

FIT5059
Advanced programming for database applications

Unit Guide

Semester 2, 2011

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.

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FIT5059 Advanced programming for database applications - Semester 2, 2011

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

Gippsland (Off-campus)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratory/wk

Workload

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

- 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

For MAIT students: [FIT9019](#) and [FIT9030](#) and either [FIT9004](#) or [FIT9017](#)

For all other students: [FIT9003](#) and either [FIT9004](#) or [FIT9017](#)

Knowledge of relational database principles, including SQL.

Chief Examiner

Associate Professor David Taniar

Campus Lecturer

Gippsland

Gour Karmakar

Contact hours: Email for appointment

Tutors

Gippsland

Gour Karmakar

Academic Overview

Learning Objectives

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.

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): 60%; In-semester assessment: 40%

Assessment Task	Value	Due Date
Assignment 1	10%	18 August 2011
Assignment 2	30%	11 October 2011
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.

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
- Solutions to tutes, labs and assignments

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.monash.edu.au/about/monash-directions/directions.html>

<http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html>

Previous Student Evaluations of this unit

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

<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

Required Resources

Prescribed text:

Taniar, D. And Lim S. Y. (2007). *Oracle Form Development for Database Applications*, Rinton Press, ISBN 1-58949-055-X

You will need access to:

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

Off-campus students need to install these software into their PC/Laptop.

These softwares are freely available to download at the following 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) from
<http://www.oracle.com/technology/software/products/ids/index.html>

Unit Schedule

Week	Activities	Assessment
0	Before You Start, install required software (Please visit Study Guide 0 for software installation)	No formal assessment or activities are undertaken in week 0
1	Topic 1 - SQL	
2	Topic 2 - Data Block Forms	
3	Topic 2 - Data Block Forms	
4	Topic 2 - Data Block Forms	
5	Topic 3 - Basic PL/SQL Programming	Assignment 1 due 18 August 2011
6	Topic 3 - Advanced PL/SQL Programming	
7	Topic 4 - Custom Form (Basic)	
8	Topic 4 - Custom Form (Multiple Form)	
9	Topic 4 - Custom Forms (Tab Forms)	
10	Topic 4 - Custom Forms (Stacked Forms)	
11	Topic 5 - Integrated Applications	
12	Topic 5 - Integrated Applications	Assignment 2 due 11 October 2011
	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 MUSO (Blackboard or Moodle) learning system.

Assessment Requirements

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 50% then a mark of no greater than 49-N will be recorded for the unit

Assessment Tasks

Participation

• Assessment task 1

Title:

Assignment 1

Description:

The basic of PL/SQL language

Weighting:

10%

Criteria for assessment:

1. PL/SQL Syntax
2. Implementation of the commands using Oracle Database

Due date:

18 August 2011

• Assessment task 2

Title:

Assignment 2

Description:

Oracle Form Builder

Weighting:

30%

Criteria for assessment:

1. Completeness of each sub-system.
2. Correctness of each the sub-system.
3. Testing results.
4. Technical requirements of the system specified in the assignment specification.

Due date:

11 October 2011

Examinations

- **Examination 1**

Weighting:

60%

Length:

3 hours

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

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).

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

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>)
- Assessment
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-p>)
- Special Consideration
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.h>)
- 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
- Academic and Administrative Complaints and Grievances Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy>)
- Codes of Practice for Teaching and Learning
(<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea>)

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. 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. 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://adm.monash.edu/sss/equity-diversity/disability-liaison/index.html>;
- Telephone: 03 9905 5704 to book an appointment with a DLO;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus.

READING LIST:

Morrison, J. and Morrison, M. (2005). Guide to Oracle 10g, Fifth edition, Cengage Learning, ISBN: 0619216298