MONASH University

FIT5059
Advanced programming for database applications

Unit guide

Semester 1, 2009

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FIT5059 Advanced programming for database applications - Semester 1, 2009

Unit leader :

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Lecturer(s) :

Clayton

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Tutors(s) :

Clayton

- Winy (Geng Zhao)
- Jason (Kefeng Xuan)

Introduction

Welcome to FIT5059 Advanced Programming for Business Applications for semester 1, 2009. This 6 point unit is an elective to all postgraduate degree programs in the Faculty of Information Technology.

The unit has been designed to provide you with practical skills in programming for database applications using forms. It explores many aspects of databases with emphasis on form programming using a main-stream database management system.

Unit synopsis

This subject 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.

ASCED Code: 020303 Database Management

Learning outcomes

This units extends students knowledge in database application development and skills to make use of the current database technology in developing form applications. The unit provides the students with an opportunity to explore form database programming. This unit has been designed for database application developers with a strong practical focus. The primary aim of the unit is to familiarize the students with form database programming. At the completion of this unit, students should be able to: (1) create a database system for practical application utilizing forms, reports and graphics, (2) understand the principal aspects of setting up a complete database software system,

(3) apply professional form design processes and techniques to tailored database applications; and (4) produce a database system of professional quality.

Workload

Workload commitments per week are:

- two-hour lecture and
- one-hour laboratory
- a minimum of 4-5 hours of personal study including programming practice.
- You will need to allocate up to 8 hours per week in some weeks to complete practical work.

Unit relationships

Prerequisites

Before attempting this unit you must have satisfactorily completed

FIT9003, FIT9004

, or equivalent. You should have knowledge of databases.

Relationships

FIT5059 is an elective unit in the postgraduate courses in the Faculty of IT.

It is a prerequisite that before attempting this unit you must have satisfactorily completed

FIT9003, FIT9004

, or equivalent.You should have knowledge of databases.

You may not study this unit and

BUS3010, BUS4410, BUS5410 (BUS5410 has been recoded to FIT5059 in accordance with new Faculty procedures)

in your degree.

Continuous improvement

Monash is committed to ‘Excellence in education’ (Monash Directions 2025 - http://www.monash.edu.au/about/monash-directions/directions.html) and strives for the highest possible quality in teaching and learning.

To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. The University’s Unit Evaluation policy (http://www.policy.monash.edu/policy-bank/academic/education/quality/unit-evaluation-policy.html) requires that every unit offered is evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to “have their say”. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Faculties have the option of administering the Unit Evaluation survey online through the my.monash portal or in class. Lecturers will inform students of the method being used for this unit towards the end of the semester.

Student Evaluations

If you wish to view how previous students rated this unit, please go to
http://www.adm.monash.edu.au/cheq/evaluations/unit-evaluations/

Unit staff - contact details

Unit leader

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Winy (Geng Zhao)

Additional communication information

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Teaching and learning method

The unit will be delivered via lectures and laboratories.

Lecture: During the lecture, your lecturer will introduce key theoretical concepts and demonstrate various approaches to database tasks.

Laboratory: During the lab, a set of exercises which allow you to practise database form programming will be given.

Tutorial allocation

On-campus students should register for tutorials/laboratories using Allocate+.

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

Week	Topic	Key dates
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	
6	Topic 3 - Advanced PL/SQL Programming	
Mid semester break		
7	Topic 4 - Custom Form (Basic)	Mid Term Test
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	Assignment Due
12	Topic 6 - Reports	
13	Revision	

Unit Resources

Prescribed text(s) and readings

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

Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

Recommended text(s) and readings

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

Required software and/or hardware

You will need access to:

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

On-campus students may use this software which is installed in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide.

Equipment and consumables required or provided

On-campus students 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 4-5 hours per week for use of a computer.

Study resources

Study resources we will provide for your study are:

- Weekly detailed lecture notes outlining the learning objectives, discussion of the content, required readings and exercises;
- Weekly tutorial or laboratory tasks and exercises with sample solutions provided two weeks later;
- Assignment specifications and sample solutions;
- A sample examination and suggested solution
- This Unit Guide outlining the administrative information for the unit;
- The unit web site on MUSO/Blackboard, where resources outlined above will be made available.

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to http://www.lib.monash.edu.au.

The Educational Library and Media Resources (LMR) is also a very resourceful place to visit at http://www.education.monash.edu.au/library/

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (http://moodle.monash.edu.au) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: http://www.monash.edu.au/muso/support/students/downloadables-student.html

You can contact the MUSO Support by phone : (+61 3) 9903 1268

For further contact information including operational hours, please visit:
http://www.monash.edu.au/muso/support/students/contact.html

Further information can be obtained from the MUSO support site:
http://www.monash.edu.au/muso/support/index.html

Assessment

Unit assessment policy

The unit is assessed with one assignment (30%), one class test (10%), and a two-hour closed book examination (60%). To pass the unit you must:

- attempt the assignment, the class test, and the examination
- achieve no less than 40% of the possible marks in the non-exam assessments (assignment and class test)
- achieve no less than 40% of the possible marks in the exam
- achieve no less than 50% of possible marks

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

Assignment tasks

- ### Assignment Task

  Title : Oracle Form Builder

  Description :

  This is a group assignment. Students will develop a complete form application using Oracle Developer Suite.
  Weighting : 30%

  Criteria for assessment :

  These will be supplied as part of the assignment task.
  Due date : Week 11, Thursday 21-May-2008, 3pm

Examinations

- **Examination 1**

  Weighting : 60%

  Length : 2 hours

  Type (open/closed book) : Closed book

Assignment submission

Assignments will be submitted by paper/CD submission, with theappropriate cover sheet correctly filled out, to the designated assignment box at building H, Caulfield School of IT. Do not email submissions. The due date/time is the date/time by which the submission must be received. The date/time by which the the submissionis to be posted.

Assignment coversheets

Refer to your campus web site for details.

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. 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 seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Late assignment

Assignments received after the due date will be subject to a penalty of 5% per day, including weekends. Assignments received later than one week (7 days) after the due date will not normally be accepted.

Return dates

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

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at http://www.policy.monash.edu/policy-bank/academic/education/assessment/

We will aim to have assignment results made available to you within two weeks after assignment receipt.

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with the University Plagiarism policy and procedure (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) which applies to students detected plagiarising.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications

are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- Disabilities Liaison Unit

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at http://www.monash.edu.au/exams/special-consideration.html. Contact the Faculty's Student Services staff at your campus for further information and advice.