COIT20259 *Enterprise Computing Architecture*
Term 2 - 2017

Profile information current as at 12/10/2024 06:40 pm

All details in this unit profile for COIT20259 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student).The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

This unit introduces you to the components, architectures and industrial standards involved in the design and implementation of enterprise software applications. The focus will be on applications employing 3 tiers - a presentation tier, an application tier and a data persistence tier. In terms of technology, both traditional desktop applications and web-based applications will be covered and different technology platforms will be compared and contrasted. Emerging technologies and current research issues will also be discussed. Note: If you have completed COIT20227 Enterprise Computing then you cannot take this unit.

Details

Career Level: *Postgraduate*
Unit Level: *Level 9*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Prerequisites: COIT20256 Data Structures and Algorithms, COIT20247 Database Design and Development Co-requisite: COIT20257 Distributed Systems: Principles and Development, COIT20258 Software Design: Principles, Models and Patterns
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 2 - 2017

- Brisbane
- Distance
- Melbourne
- Rockhampton
- Sydney

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Postgraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Written Assessment**
Weighting: 20%
2. **Practical and Written Assessment**
Weighting: 40%
3. **Examination**
Weighting: 40%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student evaluation

Feedback

Development tools should not be restricted to specific.

Recommendation

Introduce and allow more development tools than the current Maven.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Compare and contrast the major enterprise software architectures.
2. Analyse and evaluate the design options available for each tier in a typical 3-tiered application.
3. Design and implement complex 3-tier applications.
4. Assess the potential business impact of emerging enterprise computing technologies.
5. Critically evaluate key research areas in enterprise computing.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles.
ACS members can use the tool MySFIA to build a skills profile at
https://www.acs.org.au/professionalrecognition/mysfia-b2c.html
This unit contributes to the following workplace skills as defined by SFIA. The SFIA code is included:

- Systems Design(DESN)
- Systems integration (SINT)
- Program ming/Software Development (PROG
- Data analysis (DTAN)
- Database/repository design (DBDS)
- Testing (TEST), Network support (NTAS)
- Release and deployment (RELM)
- Application support (ASUP).

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ∘ Professional Level | ∘ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Written Assessment - 20%	•	•		•	•
2 - Practical and Written Assessment - 40%		•	•		
3 - Examination - 40%	•	•		•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Knowledge	∘	∘	∘	∘	∘
2 - Communication	∘	∘	∘	∘	∘
3 - Cognitive, technical and creative skills		∘	∘		
4 - Research	∘	∘		∘	∘
5 - Self-management					
6 - Ethical and Professional Responsibility					
7 - Leadership					
8 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Written Assessment - 20%	∘	∘		∘				
2 - Practical and Written Assessment - 40%	∘	∘	∘					
3 - Examination - 40%	∘		∘					

Textbooks and Resources

Textbooks

COIT20259

Prescribed

Beginning Java EE 7
(2013)
Authors: Antonio Goncalves
Apress
New York , NY , USA
ISBN: 978-1-4302-4626-8
Binding: Hardcover

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- JDK 1.7 or higher; Apache Maven 3 or higher; Derby Database 10 or higher; GlassFish 4 Application Server; NetBeans IDE 8.1 or higher

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Wei Li Unit Coordinator
w.li@cqu.edu.au

Schedule

Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Enterprise Computing & Java EE	1 & 4	

Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Object-Relational Mapping	5	

Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Managing Persistent Objects	5 & 6	

Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Callbacks and Listeners	6	

Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic

Enterprise Java Beans	7	**Assignment 1** Due: Week 5 Friday (11 Aug 2017) 11:45 pm AEST
Vacation Week - 14 Aug 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Vocation		
Week 6 - 21 Aug 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Session Beans	7 & 8	
Week 7 - 28 Aug 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Callbacks, Timer Service and Authorization	8	
Week 8 - 04 Sep 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
JavaServer Faces	10	
Week 9 - 11 Sep 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Pages and Components	10	
Week 10 - 18 Sep 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Processing and Navigation	11	
Week 11 - 25 Sep 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Transactions	8 & 9	**Assignment 2** Due: Week 11 Friday (29 Sept 2017) 11:45 pm AEST
Week 12 - 02 Oct 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Messaging	13	
Review/Exam Week - 09 Oct 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Exam Week - 16 Oct 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Term Specific Information

The unit coordinator contact information for T2 2017
Dr. Wei Li
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Assessment Tasks

1 Assignment 1

Assessment Type
Written Assessment

Task Description
Your task for this assignment is to write a technical report on the topic of Review Enterprise Computing Platforms: Java EE, .NET and Clould, which are the technology to build, deploy and maintain multi-tier enterprise applications. The purpose of this assignment is to assess your competency in review and critique of a technical issue and writing a formal academic report.
The assignment specification and marking criteria can be found from the unit web site.

Assessment Due Date
Week 5 Friday (11 Aug 2017) 11:45 pm AEST

Assignment-1 Due

Return Date to Students
Week 6 Friday (25 Aug 2017)

Assignment-1 Results Release

Weighting
20%

Assessment Criteria
The assignment will be assessed by the format, technical contents and referencing of the report. The detailed marking criteria can be found from the unit web site.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit from the unit Moodle site

assessmentOutcome

- Compare and contrast the major enterprise software architectures.
- Analyse and evaluate the design options available for each tier in a typical 3-tiered application.
- Assess the potential business impact of emerging enterprise computing technologies.
- Critically evaluate key research areas in enterprise computing.

assessmentGradAttribute

- Knowledge
- Communication
- Research

2 Assignment 2

Assessment Type
Practical and Written Assessment

Task Description
Your task for this assignment is to design, implement, test and document a 3-tier enterprise application system. The purpose of this assignment is to assess your competency in enterprise computing paradigm, JSF, EJB and JPA programming and the interoperations between layers of an enterprise application.
The assignment specification and marking criteria can be found from the unit web site.

Assessment Due Date
Week 11 Friday (29 Sept 2017) 11:45 pm AEST

Assignment-2 Due

Return Date to Students
Review/Exam Week Friday (13 Oct 2017)

Assignment-2 Results Release

Weighting
40%

Assessment Criteria
The assignment will be assessed by the design and test document and the software implementation. The detailed marking criteria can be found from the unit web site.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit from the unit Moodle site

assessmentOutcome

- Analyse and evaluate the design options available for each tier in a typical 3-tiered application.
- Design and implement complex 3-tier applications.

assessmentGradAttribute

- Knowledge
- Communication
- Cognitive, technical and creative skills

Examination

Outline
Complete an invigilated examination.

Date
During the examination period at a CQUniversity examination centre.

Weighting
40%

Length
120 minutes

Exam Conditions
Open Book.

Materials
Calculator - non-programmable, no text retrieval, silent only
Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

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assessmentOutcome

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assessmentGradAttribute

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem