



COMP6150

Introduction to Database Design and Management

Session 2, In person-scheduled-weekday, North Ryde 2026

School of Computing

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	3
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	5
<u>Delivery and Resources</u>	7
<u>Policies and Procedures</u>	8
<u>Changes from Previous Offering</u>	9

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff

Convenor and Lecturer

Frances Louise

frances.louise@mq.edu.au

Contact via Unit email

Check on iLearn

Lecturer

Charanya Ramakrishnan

charanya.ramakrishnan@mq.edu.au

Contact via Unit email

Check on iLearn

Credit points

10

Prerequisites

Corequisites

Co-badged status

COMP6150

Unit description

This unit introduces students to the principles and concepts of data storage, management and modelling, including the role of data and information in organisations. The unit will cover conceptual modelling techniques, converting conceptual data models into relational data models and verifying its structural characteristics with normalisation techniques, and implementing and utilising a relational database using a database-management system. Fundamental data modelling tools, techniques and query languages such as Structured Query Language (SQL) will be used. An introduction to the concepts and issues relating to data warehousing, governance, administration, security and privacy and alternative database structures such as distributed and object-oriented databases will be provided. Ethical and green approaches to the collection, backup, use and storage of data and the construction of systems are emphasised. The unit concentrates upon building a firm foundation in information representation, organisation and storage with particular emphasis upon the application of database systems.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are

available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

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

ULO1: Analyse data requirements and design and develop conceptual database models.

ULO2: Implement system models into databases, design and create simple databases for business information systems and write programs to produce interactive queries.

ULO3: Use data analysis and data modelling techniques and tools for introductory level database design and specification.

ULO4: Explain the role and nature of ethics and sustainability in the IT environment related to databases.

General Assessment Information

We strongly encourage all students to participate actively in all learning activities. Regular engagement is crucial for your success in this unit, as these activities provide opportunities to deepen your understanding of the material, collaborate with peers, and receive valuable feedback from instructors to assist in completing the unit assessments. Your active participation enhances your learning experience and contributes to a vibrant and dynamic learning environment for everyone.

Requirements to Pass this Unit

To pass this unit, you must:

- Achieve a total mark equal to or greater than 50%

There are no hurdle requirements for the unit.

Assessment Information

Database Design Group Project

This is a group assignment to be submitted on iLearn. Each student must contribute to every part of the task, and to encourage collaboration in identifying the best solutions. If it is submitted late, the entire group will be penalised unless special consideration applies.

Skill Exercise

This is an individual assessment held on campus and invigilated during the practical class for which you are registered.

Final Exam

This is an individual formal examination that will be conducted on campus and invigilated. The time and place will be published on <https://iexams.mq.edu.au/> closer to the date.

Release Dates

- Database Design Group Project: specifications to be released no later than week 3
- Skill Exercise: information and sample questions are to be released no later than week 8
- Final Exam: information and sample questions are to be released no later than week 12

Submission of assessable work

For all your assignments and your professional life in the future, you are encouraged to:

- Set your personal deadline earlier than the official deadline
- Keep backups of all your important files
- Ensure that no one else has access to your files or documents

Assessments where Late Submissions will be accepted

- Database Design Project – YES, Standard Late Penalty applies
- Skills Exercise - NO, unless Special Consideration is Granted
- Final Exam - NO, unless Special Consideration is Granted

Short extension does not apply for any assessment in this unit.

Special Consideration

The [Special Consideration Policy](#) aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable, and significantly disruptive and may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please submit a Special Consideration request through <https://connect.mq.edu.au>.

Late Submission Policy

If you have no extensions or have submitted after the new extension date,

- **5% penalty per day:** If you submit your assessment late, **5% of the total possible marks** will be deducted for each day (including weekends), up to 7 days.
 - *Example 1 (out of 100):* If you score 85/100 but submit 20 hours late, you will lose 5 marks and receive **80/100**.
 - *Example 2 (out of 30):* If you score 27/30 but submit 1 day late, you will lose 1.5 marks and receive **25.5/30**.
- **After 7 days:** Submissions more than 7 days late will receive a **mark of 0**.

Universal Design for Learning (UDL)

Invigilated assessments have been designed with universal design strategies in mind, which may

remove the need for individual reasonable adjustments. All students will have up to 50% extra time to complete these assessments. This extra time has been applied to all students.

AI Approach

- **Open** These assessments do not restrict the application of AI tools. However, it is expected that the use of AI is acknowledged in an appropriate manner, similar to the expectation to provide references for other resources or tools that are used in producing your work. Any use of AI should comply with the University's [Responsible and Ethical Use of Artificial Intelligence Policy](#).
- **Observed** These tasks are either fully or partly observed or invigilated. AI use will either not be permitted or will be restricted during the assessment.

For more information, please see <https://students.mq.edu.au/study/assessment-exams/assessments/ai-and-assessment>

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Database Design Group Project	30%	No	18/09/2026	Group	No	Open
Skills Exercise	20%	No	In Week 10, during the registered Practical class	Individual	No	Observed
Final Exam	50%	No	Exam Period	Individual	No	Observed

Database Design Group Project

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 25 hours

Due: **18/09/2026**

Weighting: **30%**

Groupwork/Individual: Group

Short extension ³: No

AI Approach: Open

You will design a database using a top-down approach. You will be assessed on how well you develop an entity-relationship diagram, complete the logical transformation for the given problem description, and plan the physical design.

On successful completion you will be able to:

- Analyse data requirements and design and develop conceptual database models.
- Implement system models into databases, design and create simple databases for business information systems and write programs to produce interactive queries.
- Use data analysis and data modelling techniques and tools for introductory level database design and specification.

Skills Exercise

Assessment Type ¹: Experiential task

Indicative Time on Task ²: 20 hours

Due: **In Week 10, during the registered Practical class**

Weighting: **20%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

You will execute database queries to demonstrate your knowledge of SQL. You will be assessed on how successfully your SQL queries solve the given problem statements.

On successful completion you will be able to:

- Implement system models into databases, design and create simple databases for business information systems and write programs to produce interactive queries.

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 25 hours

Due: **Exam Period**

Weighting: **50%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

You will undertake a final examination during the formal examination period.

On successful completion you will be able to:

- Analyse data requirements and design and develop conceptual database models.
- Implement system models into databases, design and create simple databases for business information systems and write programs to produce interactive queries.
- Use data analysis and data modelling techniques and tools for introductory level database design and specification.
- Explain the role and nature of ethics and sustainability in the IT environment related to

databases.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- [Academic Success](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

Classes

Each week, you should engage and participate in:

- a two-hour lecture
- a two-hour practical

For details of days, times and rooms, consult your personal timetable on eStudent. For details of scheduled classes, consult the Classfinder tool on [eStudent](#).

Week 1 Classes

Note that both the lecture and practical classes commence in week 1.

Please attend the practical class for which you are registered on eStudent.

Methods of Communication

We will communicate with you via your university email and through announcements on iLearn.

For queries:

- General queries that can be answered by either your classmates or the teaching staff can be placed on the iLearn general discussion forum.
- Private and other queries can be sent to the core teaching staff via the unit email: comp1350@mq.edu.au and including that you are in the COMP6150 cohort in the email subject.

Texts and Materials

Notes are available each week on iLearn, but they are intended as an outline of the lecture only and are not a substitute for your own notes or reading of any textbook or other additional material.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit <https://students.mq.edu.au/support/technology/service-desk>.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

We value student feedback to be able to continually improve the way we offer our units. As such, we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link on the iLearn page.

Student feedback from the previous offering of this unit was very positive overall, with students pleased with the clarity around assessment requirements and the level of support from teaching staff. As such, no change to the delivery of the unit is planned, however we will continue to strive to improve the level of support and the level of student engagement.

Unit information based on version 2026.03 of the [Handbook](#)