This document provides you with information about the requirements for assessment. Detailed instructions and resources are included to help you to complete and submit the task. The Criterion Reference Assessment (CRA) Rubric that markers use to grade the assessment task is included and should be used as a guide when working on the assessment task.

Task Overview

Assessment name:	Project (applied)
Task description:	You are employed as a database designer for a small firm and have been asked to design and develop a new database system. This task involves two components. **Part A** requires you to analyse the database requirements of the organisation and to create an Object Role Model (ORM) diagram and to develop a relational schema. The brief that provides the client requirements will be provided during week 5. **Part B:** In week 10, you will be provided with a set of tasks related to the ethical use of the database management, which you must complete using MySQL.
Learning outcomes measured:	1. Evaluate database systems, data models and physical data structures. 2. Realise the storage, retrieval (query formulation) and manipulation of data. 3. Develop effective database designs. 4. Conceptualise and present data models. 5. Generate ethical and culturally sensitive solutions to data management problems.
Due Date:	Part A: 23 April, 2021 Part B: 4 June, 2021
Estimated time to complete task:	30 to 40 hours
Length:	Not applicable
Weighting:	50% (Part A: 20%, Part B: 30%)
Individual or Group:	Individual or pairs

Authentic Assessment:	☒ Yes ☐ No
Formative/Summative:	Summative
How will I be assessed:	7-point grading scale using a rubric

Task details

What you need to do:	**Part A:**
	1. Read the Criterion Reference Assessment Rubric.
	2. Read the briefing document and analyse the database system requirements.
	3. Create an Object Role Model diagram to show the relationships between the data types.
	4. Check the Object Role Model diagram for accuracy.
	5. Apply the rmapping process for converting Object Role Model into a relational schema.
	6. Submit Part A.
	Part B:
	1. Implement the relational schema into the database system using MySQL determining appropriate data types.
	2. Populate the database with some test data.
	3. Complete the given tasks related to data management, database administration and database security outlined in the brief.
	4. Complete the given tasks on special topics outlined on the brief.
	5. Submit Part B via Blackboard.
Presentation requirements:	Not applicable.

Resources needed to complete task:	- IFB105 Blackboard site - QUT Cite|Write APA guide. - MySQL - LucidChart or Draw.IO

Submission Information

What you need to submit:	**Part A:**
	
	One Adobe PDF document that contains the following items:
	
	   1. Assignment coversheet.
	   2. ORM Diagram and relationship schema
	
	Part B:
	
	One Zipped file that contains the following items:
	
	   1. Assignment coversheet.
	   2. A SQL script file (text file) to create your working database for Task 1.
	   3. A SQL script file (text file) that contains solutions for Task 2 and Task 3.
	   4. Ms Word file solutions for Task 4 and Task 5.

How to submit:	1. Click on the **Submit Assessment Task 3** link. 2. **Drag** your Assessment file into the **Attach Files** box OR click on the **Browse my Computer** button to locate your file. 3. **Add** any **comments** you wish to make to your tutor in the **Comments** textbox. 4. Click the **Submit** button. 5. You will get a confirmation that you have submitted successfully. Click the **OK** button.
What feedback will I receive?	Under normal circumstances, you will receive individual written feedback on this assessment task within 15 days of

	submission. You should read this feedback carefully and use it to strengthen your performance in the next assessment task/next unit.
Moderation:	All staff who are assessing your work meet to discuss and compare their judgements before marks or grades are finalised.

Academic Integrity

As a student of the QUT academic community, you are asked to work to uphold the principles of academic integrity during your course of study. QUT sets expectations and responsibilities of students, more specifically it states that students "adopt an ethical approach to academic work and assessment in accordance with this policy and the Student Code of Conduct. E/2.1 (MOPP C/5.3 Academic Integrity).

At university, students are expected to demonstrate their own understanding and thinking using the ideas provided by 'others' to support and inform their work, always making due acknowledgement to the source. While we encourage peer learning, it is not appropriate to share assignments with other students unless your assessment piece has been stated as being a group assignment. If you do share your assignment with another student, and they copy part of or all of your assignment for their submission, this is considered collusion and you may also be reported for academic misconduct. If you are unsure and need further information you can find this at: http://www.mopp.qut.edu.au/C/C_05_03.jsp#C_05_03.03.mdoc.

IFB105 | DATABASE MANAGEMENT | ASSESSMENT TASK 3 – PART A RUBRIC

Criteria	High Distinction	Distinction	Credit	Pass	Marginal Fail	Fail/Low Fail	No Evidence
Application of Conceptual Schema Design Procedure Weighting: 55%	In-depth and expert application of steps 1 – 5 of the CSDP evidenced by the correct identification of all fact and object types, uniqueness constraints, and mandatory roles with no redundancies.	Comprehensively applies steps 1 – 5 of the CSDP evidenced by the identification of all facts and object types and most uniqueness constraints and mandatory roles with an occasional redundancy and/or omission.	In the main, successfully applies most of steps 1 – 5 of the CSDP evidenced by the identification of most facts and object types and several of uniqueness constraints and mandatory roles. Some redundancies gaps and minor errors evident.	Makes an attempt to apply steps 1 – 5 of the CSDP. Some basic fact and/or object types, and/or uniqueness constraints and/or mandatory roles have been identified, but with a number of redundancies, omissions and/or errors.	Limited ability to apply steps 1 – 5 of the CSDP evidenced by only a few obvious facts, object types, uniqueness constraints and/or mandatory roles being identified, but with significant gaps and errors.	Unable to apply steps 1 – 5 of the CSDP.	No evidence of addressing this criterion.
Application of Rmapping Procedure **Weighting: 30%**	In-depth and expert application of rules 1 – 4 of the Rmapping evidenced by the correct identification of all fact and object types, uniqueness constraints, and mandatory roles with no redundancies.	Comprehensively applies rules 1 – 4 of the Rmapping evidenced by the identification of all facts and object types and most uniqueness constraints and mandatory roles with an occasional redundancy and/or omission.	In the main, successfully applies most of rules 1 – 4 of the Rmapping evidenced by the identification of most facts and object types and several of uniqueness constraints and mandatory roles. Some redundancies gaps and minor errors evident.	Makes an attempt to apply rules 1 – 4 of the Rmapping. Some basic fact and/or object types, and/or uniqueness constraints and/or mandatory roles have been identified, but with a number of redundancies, omissions and/or errors.	Limited ability to apply rules 1 – 4 of the Rmapping evidenced by only a few obvious facts, object types, uniqueness constraints and/or mandatory roles being identified, but with significant gaps and errors.	Unable to apply rules 1 – 4 of the Rmapping.	No evidence of addressing this criterion.

Criteria	High Distinction	Distinction	Credit	Pass	Marginal Fail	Fail/Low Fail	No Evidence
Use of a software application to visually communicate a ORM diagram and relational schema Weighting: 15%	Highly effective use of a software package to create a coherent, professional, and visually appealing ORM diagram. All ORM symbols are correctly used, symmetrical, appropriately sized, correctly labelled and readable.	Effective use of a software package to create for the most part a coherent, professional and visually appealing ORM diagram. Use of ORM symbols are mostly correct, symmetrical, appropriately sized, correctly labelled and readable, but with some minor formatting inconsistencies.	Makes use of a several features of a software package to create for the most part, a clear ORM diagram. ORM symbols are generally used correctly, but there are a several inconsistencies in formatting and/or on occasion some minor readability issues.	Makes use of some basic features of a software package to create a partial, ORM diagram, but with some errors/omissions. Some ORM symbols are correctly used, but there are a number issues with the layout, consistency of visual elements and/or the readability of the diagram.	Presents an incomplete ORM diagram. Poor or no use of software to create ORM diagram. Multiple ORM symbols are incorrectly used and there are significant issues with the layout, consistency of visual elements and the readability of the diagram.	Poorly presented ORM diagram with significant errors and omissions and inconsistencies.	No evidence of addressing this criterion.

IFB105 | DATABASE MANAGEMENT | ASSESSMENT TASK 3 – PART B RUBRIC

Criteria	High Distinction	Distinction	Credit	Pass	Marginal Fail	Fail/Low Fail	No Evidence
Task 1 Database Creation Weighting: 20%	Database creation script runs without any issue creating all database objects as required and populating data. Can be used as a model solution.	Comprehensively creates database without any issues creating all database objects as required and populating data. Can be used as a model solution after making minor corrections.	Most of the database objects are created as required and populating data. Can be used as a model solution after making few corrections.	Makes an attempt to create database objects but requires significant changes to make it work. Cannot be used as a model solution.	Limited understanding of database creation process resulting in failure of creating most of the database objects.	Script does not work.	No evidence of addressing this criterion.
Task 2 Queries Weighting: 45%	All the queries work without any issue retrieving data as intended. Can be used as a model solution.	All the queries work without any issue retrieving data as intended. Can be used as a model solution after minor corrections.	Most of the queries work as intended retrieving data as required. Can be used as a model solution after making few corrections.	Few queries work as intended to retrieve data as required while others make an unsuccessful attempt.	None of queries work as intended to retrieve data as required. Few make an unsuccessful attempt to work.	None of queries work as intended to retrieve data as required.	No evidence of addressing this criterion.

Criteria	High Distinction	Distinction	Credit	Pass	Marginal Fail	Fail/Low Fail	No Evidence
Task 3 Database Updation Weighting 15%	All the command work without any issue updating data as intended. Can be used as a model solution.	All the commands work without any issue updating data as intended. Can be used as a model solution after minor corrections.	Most of the commands work as intended updating data as required. Can be used as a model solution after making few corrections.	Few commands work as intended to update data as required while others make an unsuccessful attempt.	None of commands work as intended to update data as required. Few make an unsuccessful attempt to work.	None of commands work as intended to update data as required.	No evidence of addressing this criterion.
Task 4 Normalisation Weighting 15%	Normalisation process completed identifying all the functional dependencies, relations, primary keys and foreign keys. Can be used as a model solution.	Normalisation process completed identifying most of the functional dependencies, relations, primary keys and foreign keys. Can be used as a model solution after minor corrections.	Normalisation process completed identifying few functional dependencies, relations, primary keys and foreign keys. Can be used as a model solution after few corrections.	Makes an attempt to the normalization process with substantial failure in identifying functional dependencies, relations, primary keys and foreign keys.	Limited ability to apply the normalization process.	No understanding of the normalization process	No evidence of addressing this criterion.
Task 5 Analysis of client brief	Critical analysis of client brief demonstrates in-depth understanding	Critical analysis of client brief demonstrates understanding of client's specific	Analysis of client brief demonstrates a broad understanding of	A rudimentary analysis of client brief demonstrates a partial understanding of	Analysis of client brief demonstrates a limited understanding	Attempted analysis of client brief reveals a significant misinterpretation	No evidence of addressing

Criteria	High Distinction	Distinction	Credit	Pass	Marginal Fail	Fail/Low Fail	No Evidence
Weighting: 5%	of the client's specific requirements.	requirements with a few minor errors/ omissions or misconceptions.	client requirements but with some errors/omissions or misconceptions.	client requirements with a number of errors/omissions or misconceptions.	of client requirements with significant errors/ omissions or misconceptions.	of the client requirements with major errors/omissions and misconceptions	this criterion.