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| **WRITTEN ASSESSMENT** | **Uncontrolled when printed**  **16/12/2014**  **FM02\_21a** |

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| **Student Name:** | | |  | | | **Student Number:** | | |  |
| **Unit Code/s & Name/s:** | | | **ICADB412A & ICADBS502A - Design and Build a Database** | | | | | | |
| **Assessment Type:** | | | **Exam/Test  Assignment  Other** | | | | | | |
| **Assessment Description:** | | | **P1 – Design and Build a Database** | | | | | | |
| **Assessment Due Date:** | | |  | | **Assessment Received Date:** | | |  | |
| **Student Declaration:** I declare that this assessment is my own work. Any ideas and comments made by other people have been acknowledged as references. I understand that if this statement is found to be false, it will be regarded as misconduct and will be subject to disciplinary action as outlined in the TAFE Queensland Student Rules. I understand that emailing or submitting this assessment electronically confirms my assent to this declaration in lieu of written signature. | | | | | | | | | |
| **Student Signature:** | |  | | | | **Date: / /** | | | |
| **Assessor Feedback:**  **Student provided with feedback** | | | | | | | | | |
| **Attempt 1 Satisfactory  Not Satisfactory  Date:      /     /** | | | | | | | | | |
| **Attempt 2 Satisfactory  Not Satisfactory  Date:      /     /** | | | | | | | | | |
| **Assessor Name:** | D Kosturin | | | **Assessor Signature:** | | |  | | |
| **Note to assessor: Please record any adjustment below that has occurred to this assessment e.g. written assessment given orally.** | | | | | | | | | |
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| **Disclaimer:** TAFE Queensland North (TQN) is collecting the information on this form for assessment purposes. Only authorised Departmental officers have access to this information. Your personal information will not be disclosed to any other third party without your consent, unless authorised or required by law, in accordance with the Information Privacy Act 2009. | | | | | | | | | |

**This section must be completed by the student when the student either posts or hands a completed assessment/assignment to customer service centres. a receipt is only issued for face to face assessments when requested by the student.**

✀ **RECEIPT**

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| STUDENT TO COMPLETE |  | OFFICE USE ONLY |
| Unit of competency code/s:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |
| Assessment item/No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Date received: / / |
| Student’s name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |

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| **Instructions to Student:** | **Time allowed:** This assessment is to be completed over the semester.  **Materials and equipment to be supplied by the Student:**   * Access to a PC, MySQL server, USB Server with PHPAdmin, * **General Instructions:** * You will need access to the folder ‘Assessment’, which is in your Student Shared Drive. * You have 5 tasks to complete. * You will need to answer **all** questions correctly * Keep a copy of all assessments as you will be required, to submit them as a zipped file to your teacher.   NOTE: If you are not successful on your first attempt, you will be given comments and a further two weeks to rectify the changes.  You will need to re-submit your corrections for remarking. If you are unsuccessful on your second attempt, you will be required to re-enrol in this unit. ALL SUBMITTED WORK MUST BE YOUR OWNPlagiarism Is An Offence To avoid plagiarism, you must give credit whenever you use:   * Another person’s idea, opinion, or theory * Any facts, statistics, graphs, drawings—any pieces of information— information that is not common knowledge * Quotations of another person’s actual spoken or written * Paraphrasing of another person’s spoken or written words |
| **Instructions to Assessor:** | Please see Instructions to Student above. |
| **Assessment Context and Description: (if required)** | In order to gain competency in P1 **ICADB412A & ICADBS502A Design and Build a Database,** successful completion is required of the following assessments items:   * Written Assessment |
| **Note to Student:** | An Assessment Matrix is available from your teacher upon request. The matrix shows how the knowledge and skills that you are being asked to demonstrate align to the Elements, Performance Criteria, Critical Aspects, Required Skills and Required Knowledge components of each Unit of Competency. |

You have been approached by a client to develop a website that utilises a database for additional functionality. The requirements for the site are detailed in the Requirements document under the project resources section of this page. This project is broken into two stages. For the first stage of the project you will need to establish the client needs and technical requirements and then design and build a well-structured database that represents the client's business reality and provides the client with a productive business tool.

The second stage of this project, completed in the next section of the course will be to implement the database in a website.

You should create a new folder for this project called '**Design\_databases**' and save all project files in this folder. You should create sub folders as necessary.

Task 1 - write database requirements report

For this task you are required to write a report which identifies the database requirements for the client website based on the Requirements report. You should:

* Review the requirements report in the Project Resources section of this page. You can use the information in the Data Modelling folder to help you with this report.
* Write a **database requirements report**. As part of your report you should:
  + Create an Entity relationship diagram for the database (Conceptual Design)
  + Define any validation rules required – list in a table, include in the Entity diagram (Conceptual Design)
  + Identify primary and foreign keys in your tables (Logical Design diagram)
  + Identify referential integrity constraints - list any constraints associated with the primary and foreign keys (use your learning materials)
  + List the data types and field sizes for the database tables described in the specifications – (Physical Design diagram)
  + Develop a data dictionary – list the data types and field sizes in a table for all tables

Task 2 - create database

For this task you are required to create the database in accordance with your **database requirements report**. You should:

* Using MySQL or an alternative graphical interface create a new database
* Take a screenshot showing your database in the command prompt window, phpMyAdmin or similar
* Create tables in the database based on your requirements report
* Take a screenshot showing your database tables in the command prompt window, phpMyAdmin or similar
* Export your database and save with an appropriate filename (eg: *database\_empty.sql*)
* Add some sample data to your database tables
* Take a screenshot showing your sample data in the command prompt window, phpMyAdmin or similar
* Export your database and save with an appropriate filename (eg: *database\_sample.sql*)
* Add your screenshots as an appendix to your requirements report from Task 1

Task 3 - Design user interfaces

For this task you are required to design the user interfaces according to the requirements document. You should:

* Design the user interface pages according to the requirements report (Your designs can be either created in a graphics editing package such as Photoshop or a simple HTML mockup)
* Ensure designs are well laid out and include all appropriate fields and buttons

Task 4 - Create security policy

For this task you are required to create a security policy for the database. You should:

* Create a User Privileges table based on the requirements document
* Develop a naming convention for login names
* Create a password policy for users
* Document your security policy report

Task 5 - Create backup procedure

For this task you are required to create a backup procedure for the database. You should:

* Define a suitable schedule for backup of the database
* Define where and how the backup should be stored
* Add your backup procedure to your security policy report (Task 4)

Project Resources

Below are a number of resources needed to complete this project.

* [Requirements report](http://my.tafe.qld.gov.au/WBI/WBI_Information_Systems/WBI_ICADBS502A_TQC_A/IMS_2013v1/01_Design_db/project/resources/WCA_Requirements_Report.pdf) - this document describes the requirements of the project (PDF file 591Kb)
* Client logo - available in three formats: [west\_coast\_auto\_logo](http://my.tafe.qld.gov.au/WBI/WBI_Information_Systems/WBI_ICADBS502A_TQC_A/IMS_2013v1/01_Design_db/project/resources/west_coast_auto_logo.png).png (PNG file 36Kb), [west\_coast\_auto\_logo.jpg](http://my.tafe.qld.gov.au/WBI/WBI_Information_Systems/WBI_ICADBS502A_TQC_A/IMS_2013v1/01_Design_db/project/resources/west_coast_auto_logo.jpg) (JPG file 21Kb) and [west\_coast\_auto\_logo.psd](http://my.tafe.qld.gov.au/WBI/WBI_Information_Systems/WBI_ICADBS502A_TQC_A/IMS_2013v1/01_Design_db/project/resources/west_coast_auto_logo.psd) (PSD file 226Kb)
* [Sitemap](http://my.tafe.qld.gov.au/WBI/WBI_Information_Systems/WBI_ICADBS502A_TQC_A/IMS_2013v1/01_Design_db/project/resources/West_Coast_Auto_Sitemap.pdf) - full page view of the sitemap from the requirements document (PDF file 100Kb)
* [Wireframe](http://my.tafe.qld.gov.au/WBI/WBI_Information_Systems/WBI_ICADBS502A_TQC_A/IMS_2013v1/01_Design_db/project/resources/west_coast_auto_wireframe.pdf) - full page view of the sitemap from the requirements document (PDF file 337Kb)

You will need to submit

The following should be included in your uploaded zip file (please ensure that there are no additional files):

* Database requirements report (Task 1) including appendix with screenshots (Task 2)
* Exported databases (Task 2)
* User interface designs (Task 3)
* Security policy (Task 4 & 5)