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| Assessment Title | Website Development Assignment |

## Competency Details

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| Unit code/s and title/s | ICTWEB514 - Create dynamic web pages ICTDBS507 - Integrate databases with websites |
| Qualification code/s and title/s | ICT50220 - Diploma of Information Technology |
| Business unit/Work group | BARTS/IT Studies |

## Instructions

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| Method/s of assessment | Product (Written) |
| Overview of assessment | This assessment will require students to implement a database e-commerce web application using PHP and MySQL. |
| Task/s to be assessed | This is a practical task and will require you to design and code in the Swift language and XCode IDE.  This assessment covers the following topics:  Part I - Client Discussion and Project Specification Part II - Develop the Site Layout and Database  Part III – Database Connectivity and Session Management  Part IV - Shopping and Checkout  Part V - Website Demo and Read Me Documentation |
| Time allowed | Refer to your schedule for submission dates |
| Location of assessment | Assessment can be completed anywhere with access to the resources required. (see Resources Required section below) |
| Decision making rules | To receive a satisfactory outcome for this assessment you must complete all parts correctly. |
| Assessment conditions | This assessment must be undertaken where the conditions replicate noise levels and interruptions that people typically experience working in the ICT industry.  This is unsupervised assessment and you may access any required resources.  This is not group work and must be completed as an individual. |
| Resources required | To complete this assignment, you will need to use the following:  Notepad++ or Visual Studio Code  XAMPP server  Following documents will be provided  [Australian Website Privacy requirements – OAIC](https://www.oaic.gov.au/privacy/your-privacy-rights/what-is-a-privacy-policy)  [ITWorks PHP coding standards](https://learn.tafesa.edu.au/mod/assign/view.php?id=444812)  [ITWorks website security requirements](https://learn.tafesa.edu.au/mod/resource/view.php?id=452779) |
| Result notification and reassessment information | You will be provided feedback and the result for your assignment on TAFESA Learn. You will be and given the chance to resubmit with required corrections only once.  Refer to the TAFE SA assessment policy for more information <https://www.tafesa.edu.au/apply-enrol/before-starting/student-policies/assessment> |

### App Development Assignment

**Background**

A customer has approached ITWorks to create an e-commerce application for them using client server technologies. The web application is to appear similar to many of the e-commerce web sites which you have seen on the web (eg https://www.target.com.au/). The website should allow customers to browse the products and add to a shopping cart. Once the order is confirmed order details should be stored in a database for processing.

You are required to gather the website and the technical requirements from the client. Your lecturer will act as your client.

**Part I - Client Discussion and Project Specification**

**Client Discussion**

Discuss the website requirements and technical requirements including software, database, security and budget with the client. of the website. This can be done in class or via MS Teams with the client (your lecturer).

**Project Specification**

After discussing with the client, write a brief project specification. This document must contain the following items. Use the Project Specification Template provided. Save your document as Project\_Specification\_<your name>

1. **Description of the site:** 
   * Site Name: Old Mate
   * Products to be sold: old stuff
   * Brief description of the site (1-2 lines)

Just a bunch of old stuff, basically an online op shop. Anything before 1990

1. **Organisational Requirements:**
   * State two Organisational standards used
   * State two Legislative requirements used
   * State two Database data requirements including table names and primary keys used
2. **Site Functionalities**: Based on the client requirements list the dynamic functionalities of the web site including
   * Client-side functionalities (list at least 2)
   * Server-side functionalities (list at least 6)
3. **Technical requirements**: Identify the following upgrades and requirements
   * Web server
   * Database server
   * Scripting language
   * Two security requirements
4. **Database**: Document the proposed changes/integration into existing database (approx 20 words). Identify the entities and attributes based on the project functionalities which you identified above. Describe the database by listing the field names for each table and highlighting the primary key for each table.

Save your document as Project\_Specification\_<your name> and submit to LEARN

**Feedback/Approval**

Before you proceed to part II, client will be providing feedback on documentation via LEARN.

**Part II - Develop the Site Layout and Database**

**Site Layout** – Develop boilerplate templates using HTML and CSS. The layout should satisfy the organisational standards and legislative requirements.

**Pages and links** – Develop the pages for the website using the site layout. There must be at least four pages based on the client requirements.

**Database** – Develop the database using a suitable tool (PHPMyAdmin open source tool or similar) based on entities and attributes which you identified above. Create the tables and populate the tables with at least five sample records for each table. Save all your SQL queries to a SQL file.

Add your web pages and the sql file to ZIP file and save as Website\_PartII\_<your\_name>.zip

**Part III – Database Connectivity and Session Management**

Implement the following functionalities based on site layout and the database which you developed in Part II.

**Login -** The user enters a username and password. If the system recognizes the username/password against the database table which you have designed in Part II, the user can proceed, otherwise they must register.

**Register -** This allows a user to enter their email address (**must** be unique), password, first name, last name, address information (if applicable), and telephone number.  Once registered, they can continue to shop. The user information should be validated against the following:

* + No blank fields are allowed
  + The password must have a second confirmation password field to ensure it has been correctly entered
  + Telephone number must be numeric
  + Email address should contain @ and .

The password must be encrypted and store in the database as per the organizational requirements.

**Database Connectivity** – You are required to use a separate database access script to connect to the database. The database connection script must contain, server name, user name, password and database name.

Test the database connection and record the connectivity status. If the connection, fails you are required to debug and identify the possible causes. This information needs to be included in the read

**Part IV – Shopping and Checkout**

The users must be allowed to:

* + View a list of all products for sale
  + Search for a product by name
  + View their shopping cart

**View all products**: This page must display all products to the user   
and allow them to add a product from the list into their shopping cart. This list of products can be displayed on one scrollable page or across several pages using a table or grid.

**View shopping cart:** This page must display the list of products and their prices in the user's shopping cart. It should also allow users to delete a product from the shopping cart. It should also display the *total* price of all products in the basket.

**Search Products**: This page must allow search, including partial search, on the product name. The results of the search should display as a list which the user can add any product into the shopping cart.

**Display Order** - This page must show the total amount of the order, including sales tax (as per client requirements), shipping charges (as per client requirements), credit card number, card holder’s name and the billing address. If the information is correct, user will be able to click "Submit Order." If any of the shipping or payment information is incorrect, user will be able to go back and adjust information on previous pages.

**Database Update** - Once user submits order, order details should be save to the database. You need to have a separate table(s) in your database to save this information.

**Note**: Part III to Part V - Ensure that the code conforms to ITWorks coding standards.

Add your web pages and the sql file to ZIP file and save as Website\_PartIII\_PartIV\_<your\_name>.zip

**Part V - Website Demo and Documentation**

* **Demo –** Demonstrate your application to your client (lecturer) for feedback. You are required to cover the following areas;
  + Functionalities – Demonstrate all the core functionalities confirming all the requirements are met.
  + Browser compatibility – You must demonstrate the site compatibility using at least two browsers and one of the browsers must be a mobile version of the browser.
  + Client Feedback – Your client (lecturer) will provide the feedback after the demo Record the client feedback and the adjustments made in the website document.
* **Website Documentation –** As a part ofwebsite documentation you are required to produce a Website Documentation. This read me file should contain following information:
  + Database connectivity – Screenshot confirming the connectivity/errors.
  + Test Results – Test all the core functionalities of the site (as specified in the project specification) and document the test results. Must include one debugging screen showing the output of the browser console.
  + Browser compatibility - Test and debug the results using at least two browsers and one of the browsers must be a mobile device and the other must be a desktop device.
  + Screenshots confirming the adjustments made based on client feedback, if applicable.
  + Client sign-off – Include the screenshot of the client sign-off.

Save file as Website Documentation \_<your\_name>.zip

Download and open Website Documentation \_<your\_name>.zip from LEARN.

**Resources:**

[Australian Website Privacy requirements – OAIC](https://www.oaic.gov.au/privacy/your-privacy-rights/what-is-a-privacy-policy)

ITWorks PHP Coding Standards   
[ITWorks website security requirements](https://learn.tafesa.edu.au/mod/resource/view.php?id=452779)