



**Australian Government**

# **ICTDBS507 Integrate databases with websites**

**Release: 1**

# ICTDBS507 Integrate databases with websites

## Modification History

| Release   | Comments                                                                                                     |
|-----------|--------------------------------------------------------------------------------------------------------------|
| Release 1 | This version first released with ICT Information and Communications Technology Training Package Version 6.0. |

## Application

This unit describes the skills and knowledge required to integrate a database with a website.

It applies to those employed as web software and database developers and responsible for creating data-driven web applications.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Unit Sector

Database

## Elements and Performance Criteria

| ELEMENT                                          | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                         |
| 1.Prepare to connect database                    | 1.1 Determine organisational and user input database data requirements<br>1.2 Identify technical upgrades and requirements<br>1.3 Determine and document database integration plan according to organisational requirements<br>1.4 Submit documentation to required personnel and seek and respond to feedback |
| 2. Connect to the database                       | 2.1 Setup database credentials and establish database connection<br>2.2 Connect to database from web application using web development language<br>2.3 Transfer data according to database integration plan<br>2.4 Test database connection according to organisation and technical requirements               |

| ELEMENT                      | PERFORMANCE CRITERIA                                                                                                                                                                         |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Retrieve and display data | 3.1 Retrieve data and use structured query language (SQL)<br>3.2 Display data using required control<br>3.3 Format data according to organisational requirements                             |
| 4. Update database data      | 4.1 Update existing user input data<br>4.2 Insert data in the database with user-supplied input<br>4.3 Identify and delete data stored in database<br>4.4 Validate data and check for errors |

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

| SKILL                   | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oral communication      | <ul style="list-style-type: none"><li>• Articulates requirements and responsibilities clearly and distinctively, using industry standard technical language intended for audience and environment</li></ul>                                                                                                                                                                         |
| Reading                 | <ul style="list-style-type: none"><li>• Interprets textual information from the sources in order to identify relevant and key information</li></ul>                                                                                                                                                                                                                                 |
| Writing                 | <ul style="list-style-type: none"><li>• Writes and edits code and technical data in a logical manner using correct syntax and accuracy</li></ul>                                                                                                                                                                                                                                    |
| Planning and organising | <ul style="list-style-type: none"><li>• Operates from a broad conceptual plan, developing the operational detail in stages, regularly reviewing priorities and performance during implementation, and identifying and addressing issues</li></ul>                                                                                                                                   |
| Problem solving         | <ul style="list-style-type: none"><li>• Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information, and identifying, and evaluating options against agreed criteria</li><li>• Uses analytical processes to decide on a course of action, and establishes the criteria for deciding between different options</li></ul> |
| Self-management         | <ul style="list-style-type: none"><li>• Takes full responsibility for identifying and considering relevant organisational protocols and requirements</li></ul>                                                                                                                                                                                                                      |
| Technology              | <ul style="list-style-type: none"><li>• Identifies principles, concepts, language and practices associated with the digital world, and uses these to connect to a database from a web application, retrieving, displaying and updating data</li></ul>                                                                                                                               |

## Unit Mapping Information

Supersedes and is equivalent to ICTDBS504 Integrate database with a website.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>