



Australian Government

ICTDBS403 Create basic databases

Release: 1

ICTDBS403 Create basic databases

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to design, develop and test a database in order to meet a specification.

It applies to individuals who may be either database, or web designers, required to create a simple database to store information for an online application, using a simple entity relational database.

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. Analyse the requirements for the database	1.1 Determine the information that the database is required to hold 1.2 Develop a written requirement report for the functionality of the database 1.3 Complete the documentation, and submit it to the appropriate person for approval
2. Use data modelling to design the database to suit requirements	2.1 Design an entity-relationship (ER) diagram to model the relationships between the entities and the attributes that the database will hold 2.2 Develop primary and foreign keys to link the entities

ELEMENT	PERFORMANCE CRITERIA
	2.3 Develop a data dictionary 2.4 Complete the documentation, and submit it to the appropriate person for approval
3. Create a database on a web or database server	3.1 Use the appropriate language on a web or database server to create one or more databases 3.2 Use the appropriate language on a web or database server to create tables 3.3 Populate the database fields
4. Test the database and debug	4.1 Test the database on the web or database server 4.2 Ensure that the information represented matches the requirements

Foundation Skills

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

Skill	Performance Criteria	Description
Reading	1.1, 1.3	Analyses textual information to establish requirements
Writing	1.2, 1.3	Uses technically appropriate language and presents information in a format, and layout, that is appropriate to the requirements
Oral Communication	1.1, 1.3, 2.4	- Listens, and participates, in oral exchanges to effectively identify and confirm requirements - Presents information using appropriate and effective language in negotiating the best outcome
Navigate the world of work	1.3, 2.4	Recognises and follows, both explicit and implicit, procedures, and meets the expectations associated with own role when submitting the documentation for approval
Interact with others	1.3, 2.4	Recognises and applies the protocols governing what to communicate, with whom and how, in a range of work contexts, when submitting the documentation to the appropriate person for approval

Get the work done	1.1, 2.1-2.4, 3.1-3.3, 4.1, 4.2	- Plans a range of routine, and some non-routine, tasks, accepting stated goals and aiming to achieve them efficiently - In more complex, non-routine situations, uses a formal decision-making process, setting or clarifying goals, gathering information, and identifying and evaluating several choices against a limited set of criteria - Applies formal problem-solving processes when tackling an unfamiliar problem, breaking complex issues into manageable parts, and identifying and evaluating several options for action - Understands key principles and concepts underpinning the design, and operation, of digital systems and tools, and applies these when designing and creating a database
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTDBS403 Create basic databases	ICADBS403A Create basic databases	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTDBS403 Create basic databases

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Performance Evidence

Evidence of the ability to:

- research client requirements for a database solution
- design a database that meets client requirements
- create a database on a web hosting service or server to meet client requirements by a due date
- test and debug the database.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the principles of open platforms, including browsers and databases
- list the processes associated with the creation of entities, attributes, and in populating fields, using both software solutions and script- based input
- describe data-modelling techniques to design a database
- outline the steps in database design, modelling and implementation
- describe the internet operation related to web servers and clients
- identify the naming conventions appropriate to database design
- identify security restrictions on servers, incorporating some theoretical concepts
- describe best practice communication, and accessibility, for audiences with special needs.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the database field of work, and include access to:

- equipment, materials and industry software packages

- database and database management system
- the internet and web browser software
- software for creating entity-relationship (ER) diagrams
- software development environment
- the server.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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