![Australian Government](coat of arms) Australian Government

ICTDBS416 Create basic relational databases

Release: 1

ICTDBS416 Create basic relational databases

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 design, develop and test relational databases to meet specifications.

It applies to individuals who are database support staff, application programmers and web designers who are required to create a simple database to store information for an online, desktop, web or mobile device application, using a simple entity relational database on a web or database server environment.

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
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare to create relational database	1.1 Determine organisational database functionality requirements 1.2 Document organisational database requirements 1.3 Gather required data according to task requirements 1.4 Submit document to required personnel and according to organisational policies and procedures 1.5 Seek and respond to documentation feedback according to organisational policies and procedures
2. Design relational database	2.1 Design entity-relationship (ER) diagram to model relationships between entities, including entity attributes according to functionality requirements

ELEMENT	PERFORMANCE CRITERIA
	2.2 Define primary and foreign keys and implement relationships
	2.3 Normalise database model
	2.4 Develop data dictionary and detail entity attributes according to functionality requirements
	2.5 Document ER diagram and data dictionary, including data model, and submit to required personnel
	2.6 Seek feedback from required personnel, and update data model according to feedback
3. Create relational database	3.1 Use required language on web and database server to create relational database according to confirmed task design
	3.2 Create tables according to required language and ER diagram
	3.3 Populate database fields according to task requirements
	3.4 Test and fix database problems on web and database server
4. Finalise relational database and required documentation	4.1 Determine alignment between represented information and task requirements
	4.2 Confirm and submit all task documentation to required personnel
	4.3 Seek and respond to feedback on task delivery and documentation
	4.4 Save changes and obtain final task signoff from required personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Oral communication	• Obtains and responds to information and feedback from required personnel using succinct verbal language
Reading	• Analyses textual information to establish requirements
Writing	• Prepares required documentation detailing requirements, ER diagram and data dictionary using required format and cohesive and language
Teamwork	• Applies protocols governing what to communicate, with whom and how, in a range of work contexts
Planning and organising	• Plans a range of routine, and some non-routine, tasks, accepting stated goals and required outcomes

Skill	Description
Problem solving	• Uses formal decision-making process, setting and clarifying goals, gathering information and identifying and evaluating several choices against a limited set of criteria • Applies formal problem-solving processes when tackling unfamiliar problems, breaking complex issues into manageable parts and identifying and evaluating options for action
Self-management	• Follows explicit and implicit procedures and meets expectations associated with own role when submitting documentation for approval and completing task requirements
Technology	• Demonstrates an understanding of key principles and concepts underpinning design and operation of digital systems and tools and applies these when designing and creating a database • Uses basic cyber security procedures and techniques to maintain database, hardware, software and internet integrity

Unit Mapping Information

Supersedes and is equivalent to ICTDBS403 Create basic databases.

Links

Companion Volume Implementation Guide is found on VETNet -
https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2