



Australian Government

ICTDBS603 Determine suitability of database functionality and scalability

Release: 1

ICTDBS603 Determine suitability of database functionality and scalability

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 identify the current and future business requirements for a database.

It applies to individuals with senior system-operations or line management responsibility.

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. Determine context of the business need or problem	1.1 Develop the database objectives and identify the expected outcomes to be achieved 1.2 Document the database problem
2. Gather information	2.1 Analyse the database in order to identify the business rules, entities and relationships 2.2 Identify the existing and proposed business models 2.3 Identify any possible Big Data applications
3. Determine the database functionality	3.1 Document the existing database and the environment 3.2 Confirm database functionality with the client

ELEMENT	PERFORMANCE CRITERIA
4. Identify scalability and functionality	4.1 Identify the reserve, and long-term capacity, of the database 4.2 Identify the implications for the system's architecture, data models, data structures, hardware and software 4.3 Identify the requirements for scalability 4.4 Compare the functionality and scalability features of the database 4.5 Determine and document any gap between the features
5. Prepare the database functionality and scalability report	5.1 Document the functionality and scalability of the database 5.2 Submit the report to the client for review

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	2.1, 2.2, 2.3, 3.2, 4.1-4.5	Critically analyses complex documentation from a variety of sources, and consolidates information relating to specific criteria, to determine the requirements
Writing	1.1, 1.2, 3.1, 5.1, 5.2	Develops content in a manner that supports the purposes and format of the requirements, using the appropriate structure, layout and specialised technical language
Oral Communication	1.1, 2.2, 3.2, 4.1-4.3, 5.2	Establishes and maintains, complex and effective communications in a broad range of contexts, using listening, questioning and summarising techniques to identify needs, and uses specific and clear language when engaging with others
Get the work done	1.1, 1.2, 2.3, 4.1, 4.2, 4.3, 4.4, 4.5	- Plans strategic priorities and outcomes within a flexible, efficient and effective context, in a diverse environment exposed to competing demands - Gathers and analyses data, and seeks feedback, to improve plans and processes - Makes high-impact decisions in a complex and diverse environment, using input from a range of sources

		• Identifies the key factors that impact on decisions and their outcomes, drawing on experience, competing priorities and decision-making strategies, where appropriate • Explores and incubates, new and innovative ideas through unconstrained analysis, and critical thinking, to develop and improve the organisation's goals • Uses digital technologies to manage the business operations, and actively investigates new technologies for strategic and operational purposes
--	--	--

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTDBS603 Determine suitability of database functionality and scalability	ICADBS603B Determine suitability of database functionality and scalability	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 ICTDBS603 Determine suitability of database functionality and scalability

Modification History

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

Performance Evidence

Evidence of the ability to:

- document a clear statement of business expectations and needs, including critical business requirements
- examine the scalability, and functionality, of a database in light of future growth
- determine database functionality and scalability system requirements
- present the findings in a report to the client.

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:

- explain the architecture of the network in which the database resides
- identify and explain, the code of ethics relevant to the computing industry in Australia
- identify the common system hardware related to the client, server and database architecture
- explain the concept of data modelling
- outline the functions and features of databases
- define “Big Data”, and explain its implication for database design and functionality.

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 and materials
- industry software packages

- a database management system (DBMS)
- a sample database and data.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

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