



Australian Government

ICTDBS606 Determine database functionality and scalability

Release: 1

ICTDBS606 Determine database functionality and scalability

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 identify and determine use of industry standard business requirements for a database.

It applies to those in senior system-operations, senior database managers or line manager roles.

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 database requirements	1.1 Determine organisational database outcome requirements and database problem from organisational specifications 1.2 Analyse existing database and identify business rules, entities and relationships 1.3 Identify existing and proposed organisational business models 1.4 Identify required big data applications
2. Determine database functionality	2.1 Document existing database and environment according to organisational requirements 2.2 Identify and document database functionality requirements
3. Identify scalability and functionality	3.1 Identify reserve and long-term capacity of the database 3.2 Identify implications of systems architecture, data models,

ELEMENT	PERFORMANCE CRITERIA
	data structures, hardware and software 3.3 Identify organisation and user requirements for scalability 3.4 Compare and document functionality and scalability features of database
4. Prepare database functionality and scalability report	4.1 Document functionality and scalability of database according to organisational requirements 4.2 Submit finalised document to required personnel and seek and respond to feedback 4.3 Obtain final task sign off from required personnel

Foundation Skills

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

SKILL	DESCRIPTION
Learning	- Gathers and analyses data, and seeks feedback, to improve plans and processes - Explores and incubates new and innovative ideas through unconstrained analysis, and critical thinking, to develop and improve the organisation's goals
Oral communication	Uses listening and questioning techniques and effective mode of communication to articulate complex concepts and requirements using industry language for intended audience
Reading	Critically analyses complex documentation from a variety of sources, and consolidates information relating to specific criteria, to determine the requirements
Writing	Develops documentation detailing database functionality and scalability system, business expectations and requirements using appropriate structure, layout and technical programming language
Planning and organising	Plans strategic priorities and outcomes within a flexible, efficient and effective context, in a diverse environment exposed to competing demands
Problem solving	- 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
Self-management	Takes full responsibility for identifying and considering relevant organisational protocols and requirements

SKILL	DESCRIPTION
Technology	• Uses digital technologies to manage business operations, and actively investigates new technologies for strategic and operational purposes

Unit Mapping Information

Supersedes and is equivalent to ICTDBS603 Determine suitability of database functionality and scalability.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for ICTDBS606 Determine database functionality and scalability

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- determine functionality and scalability of a complex database.

In the course of the above, the candidate must:

- document database functionality and scalability system
- document business expectations and business requirements.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- architecture of database networks
- Australia code of ethics and its relation to the computing industry
- systems hardware related to the client, server and database architecture
- concept of data modelling
- functions and features of databases
- definition of data and implications for database design and functionality.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- industry standard equipment and materials that assist in the determination of suitability of database functionality and scalability
- industry standard software packages required to determine database functionality and scalability

- industry standard database management system (DBMS)
- industry standard sample database and data.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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