ICTDBS604 Build data warehouses

Release: 1

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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 implement a data warehouse within an organisation.

It applies to those who manage knowledge management teams or work in a team based senior role and has line management responsibility, looking after data warehouses.

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. Establish database design requirements	1.1 Review organisational database design document, data structures, queries, reports and user interface
	1.2 Review organisation business security plan and determine level of alignment to organisational requirements
	1.3 Identify big data applications
	1.4 Determine database technical specifications
	1.5 Design and document database according to technical specifications and organisational requirements
2. Identify data and sources	2.1 Identify enterprise's knowledge management strategy data requirements
	2.2 Identify subject areas for business processes and data requirements

ELEMENT	PERFORMANCE CRITERIA
	2.3 Analyse and document operational data and define warehouse sources
	2.4 Develop warehouse source specifications with reference to existing data tables and files
3. Manage warehouse operational steps and processes	3.1 Develop warehouse targets and align to business processes and data requirements
	3.2 Identify system configuration warehouse agents
	3.3 Determine and document warehouse steps and processes according to organisational requirements
4. Design and develop warehouse features	4.1 Determine and document warehouse user interface
	4.2 Develop and implement warehouse security strategy according to organisational security plan
	4.3 Identify dimension tables and fact tables
	4.4 Determine technology costs for the implementation of warehouse security strategy
	4.5 Develop and document warehouse information catalogue according to organisational requirements
5. Test and implement data warehouse	5.1 Test data warehouse against business and align to organisational requirements
	5.2 Recommend changes to business processes, according to compatibility with the data warehouse and the knowledge management strategy
	5.3 Implement data warehouse according to organisational requirements
	5.4 Benchmark and document performance level of data warehouse
	5.5 Develop and document maintenance schedule according to organisational requirements
	5.6 Submit all documentation to 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	• Monitors outcomes of decisions, considering results and identifying key concepts and principles that may be adaptable in the future

SKILL	DESCRIPTION
Numeracy	• Uses relevant information in completing cost benefit analyses
Oral communication	• Uses listening, questioning and summarising techniques to identify needs and articulate complex concepts
Reading	• Interprets the textual information obtained from a range of sources, and determines how the content may be applied to the requirements
Writing	• Develops documentation detailing plans and processes using appropriate structure, layout and technical programming language
Planning and organising	• Develops plans to manage relatively complex, non-routine tasks, with an awareness of how they may contribute to longer-term operational and strategic goals
Problem solving	• Develops and implements strategies that ensure that the organisational policies, procedures and regulatory requirements are being met • Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account • Uses systematic, analytical processes in complex non-routine situations, setting goals, gathering relevant information, and identifying and evaluating options, against the agreed criteria • Uses a systematic process to identify possible solutions to a difficult problem
Self-management	• Works autonomously, making high-level decisions to achieve, and improve, organisational goals • Takes a lead role in the development of organisational goals, roles and responsibilities • Monitors and reviews the organisation's policies, procedures, and adherence to legislative requirements, in order to implement and manage change
Technology	• Identifies principles, concepts, language and practices associated with the digital world, and uses these to build a data warehouse

Unit Mapping Information

Supersedes and is equivalent to ICTDBS601 Build a data warehouse.

Links

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