



Australian Government

Department of Education, Employment and Workplace Relations

ICAICT712A Develop a business intelligence framework

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge to manage business intelligence, including data mining and analysis.

Application of the Unit

Senior managers in medium to large organisations apply analytical and strategic business knowledge to direct the strategic planning to meet current and future business needs.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</i>

Elements and Performance Criteria

1. Elicit business intelligence requirements	1.1 Articulate the benefits of business intelligence 1.2 Select appropriate system development methodology from a range of options 1.3 Evaluate impact of business intelligence on the enterprise 1.4 Select appropriate business model for data repository 1.5 Adopt a metadata standard for the enterprise 1.6 Establish appropriate data analysis techniques
2. Direct business intelligence data manipulation	2.1 Identify data sources and scope 2.2 Endorse selected data-manipulation methods 2.3 Review and commit to feasibility of architecture design 2.4 Develop acceptance criteria 2.5 Endorse selected data-modelling techniques and processes 2.6 Endorse a load balancing algorithm for optimum processing 2.7 Sign off design specifications
3. Endorse business intelligence solution architecture	3.1 Ensure data-warehousing management techniques and processes are according to specifications 3.2 Lead scoping of logical data models 3.3 Supervise selection of middleware tools 3.4 Review and commit to searchable data repository solution
4. Finalise testing and accept framework	4.1 Finalise physical data model 4.2 Complete testing overall model 4.3 Test security 4.4 Test integrity 4.5 Perform user-acceptance test

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to evaluate information
- literacy skills to:
 - conduct oral presentations to a group
 - demonstrate leadership in a group
 - prepare and overview reports
- conflict-management skills to deal with grievances, disputes or disagreements
- information technology skills to analyse and oversee research
- initiative and enterprise skills to identify improvements to quality
- planning and organisational skills to plan, prioritise and organise own work
- problem-solving skills to resolve issues in the workplace
- research skills to validate data and information.

Required knowledge

- equity and diversity principles as they apply to the project
- OHS requirements
- organisational policy and procedures as they apply to the project
- overview knowledge of behaviour theories:
 - responsibility, achievement as in Herzberg's two factor
 - affiliation management after McClelland
 - motivation after Vroom
- personal safety issues
- public sector legislation, codes of practice and other formal agreements that directly impact on business operations
- technical knowledge of business intelligence procedures
- workplace and industry environment as it applies to project.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • determine the human factors that need to be analysed when managing people and groups • conduct business meetings applying effective communication techniques • determine essential requirements of a product, applying quality management principles • monitor and implement training for staff • resolve problems and conflicts in a business environment • support human resource management program.
Context of and specific resources for assessment	Assessment must ensure access to: • a business intelligence focus • relevant enterprise documentation, including HR and quality management policies. Where applicable, physical resources should include equipment modified for people with special needs.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct observation of the candidate running a productive business meeting and using effective interview techniques • verbal or written questioning to assess the candidate's required knowledge of: • business intelligence • data warehousing • data modelling • business domain • review of quality reports prepared by the candidate on the development of the business intelligence framework • evidence of candidate's consultations with staff and management.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where

	appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support. In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Business intelligence</i> may include:	• analytics • benchmarking • business performance management • data mining • online analytical processing • predictive analytics • reporting • text mining.
<i>System development methodology</i> may include:	• agile unified process (AUP) • prop-typing • rational unified process (RUP) • spiral • systems development life cycle (SDLC) • waterfall.
<i>Metadata standard</i> may include:	• common warehouse meta-model (CWM) • data documentation initiative (DDI) • digital object identifier (DOI) • Dublin core • eGovernment Metadata Standard (E-GMS) • ISO 23081 • ISO/IEC 11179 • multimedia content description interface (MPEG-7) • online information exchange (ONIX).
<i>Data-modelling techniques</i> may include:	• Bachman diagrams • Barker's notation • Chen's notation • data vault modelling (DVM) • Extended Backus-Naur form • IDEF1X • object role modelling (ORM) • object-relational mapping • relational model.
<i>Load balancing</i>	• biasing algorithm • round-robin algorithm.

algorithm may include:	
Middleware may include:	• application servers • web servers.
Data repository may include:	• component-repository management • digital repository • information repository • repository open-service interface definition • software repository.

Unit Sector(s)

General ICT