Australian Government

Department of Education, Employment and Workplace Relations

ICAT4186B Conduct operational acceptance tests of websites

Release: 1

INDUSTRY
SKILLS
COUNCILS
Creating Australia's Future

ICAT4186B Conduct operational acceptance tests of websites

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to provide high level assurance that websites can be effectively and efficiently provisioned and deployed live in a systematic manner.
	The following unit is linked and forms an appropriate cluster:
	• ICAT4194B Ensure basic website security
	No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	ICAT4184B	Ensure site usability for full range of users

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	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.

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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare test	1.1. Establish and document testing framework and schedule
	1.2. Determine processes and functions to be tested and assign quantitative and/or qualitative performance benchmarks to each process and function
	1.3. Benchmark and document page templates, style guides and expected traffic loads
	1.4. Determine and document the *test methodology*
	1.5. Assemble and brief the testing panel on the conduct of the test
	1.6. Develop *user*/installation manuals according to target audience understanding and needs
2. Test individual pages	2.1. Test pages against style guides and templates
	2.2. Test pages for structural and content consistency
	2.3. Apply *automatic testing software*
	2.4. Document page gross statistics of all confirmed results of all tests
3. Test page relationships	3.1. Test installation and examples listed in manual/instructions
	3.2. Test page 'navigability' using a variety of *browsers*
	3.3. Test ease of use and functionality against requirements
	3.4. Test all *software* interface points against business and technical *requirements*
	3.5. Test site security and privacy against business *requirements*
	3.6. Test response time against business *requirements*
	3.7. Conduct load simulation testing using single and multiple independent *browsers* or automated load testing tools
	3.8. Test the website's ability to handle concurrent access
	3.9. Test conformance to applicable privacy, accessibility and acceptable usage policy standards
	3.10. Apply *automatic testing software*
	3.11. Collect, collate and document results from sample *user* and data from automated test
4. Evaluate test results	4.1. Consolidate and compare results to benchmarks
	4.2. Identify results that fail to meet benchmarks and conduct site remedial iteration

ELEMENT	PERFORMANCE CRITERIA
	4.3. Record and document test results as the site performance baseline, against which further development or updating can be measured
	4.4. Provide evaluation feedback to *appropriate person* business and, if applicable, the *user*
	4.5. Ensure the *appropriate person* signs off the site prior to go live date

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
- Website development   - Website analysis   - Technical test design   - Test implementation   - Test evaluation   - Evaluation feedback   - Evaluation analysis
Required knowledge
- Website architecture   - Website security   - Work load metrics   - Technical performance measurement   - Business process design   - Customer and business liaison   - Website accessibility and equity principles

Evidence Guide

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 following is essential: • Assessment must confirm the ability to prepare an operational acceptance test that measures the independent and integrated structural, content and technical components of the site. • Measurement should focus on quantitative results as much as possible and be able to be accurately evaluated against predetermined benchmarks. To demonstrate competency in this unit the person will require access to: • Web servers • E-business website • Site server • Site server software • Analysis software • Requirements documentation • Customer relationship model • Manuals and instructions for the website • Automatic testing software
Context of and specific resources for assessment	The breadth, depth and complexity of knowledge and skills in this competency would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance would be involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature. Assessment must ensure: • Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and

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EVIDENCE GUIDE	
	procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills would be characteristic.
	• Applications may involve responsibility for, and limited organisation of, others.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1.
	• Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency.
	• Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:
	• ICAT4194B Ensure basic website security
	An individual demonstrating this competency would be able to:

EVIDENCE GUIDE	
	• Demonstrate understanding of a broad knowledge base incorporating some theoretical concepts • Apply solutions to a defined range of unpredictable problems • Identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas • Identify, analyse and evaluate information from a variety of sources • Take responsibility for own outputs in relation to specified quality standards • Take limited responsibility for the quantity and quality of the output of others • Maintain knowledge of industry products and services

Range Statement

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.	
Test methodology may include:	• unattended testing • background testing • exhaustive testing • functional testing • user acceptance testing • distributed testing performance testing • random testing • error recovery methodologies
User may include:	• a person within a department • a department within the organisation • a third party
Automatic testing software may include:	• spell check • links • HTML validator

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RANGE STATEMENT

	• CSS check, link testers
Browsers may include but is not limited to:	• Netscape Navigator • Internet Explorer • Mozilla • Opera • Galleon • Phoenix • Konqueror • Lynx
Software may include but is not limited to:	• commercial software applications • organisation-specific software • packaged software • in-house or customised software
Appropriate person may include:	• supervisor • teacher • authorised business representative • client

Unit Sector(s)

Unit sector	Test

Co-requisite units

Co-requisite units		

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Competency field

Competency field	