



Australian Government

Department of Education, Employment and Workplace Relations

ICAWEB406A Create website testing procedures

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICAI1 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to design and implement procedures that measure the performance of a website and compare them to the initial design specifications.

Application of the Unit

This unit applies to frontline technical support personnel who are required to confirm the functionality of websites.

Testing involves significant judgement in planning, design, evaluation, technical or leadership and communications functions related to services, operations and processes.

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. Document and define performance criteria	<p>1.1 Review performance specifications and determine benchmark criteria</p> <p>1.2 Validate and document performance functions</p> <p>1.3 Select measurement methodology and test on website</p> <p>1.4 Validate each performance function separately</p> <p>1.5 Record and document metric tools using appropriate methodology</p> <p>1.6 Prepare performance benchmarks and seek agreement on criteria with the <i>client</i></p>
2. Validate performance measures	<p>2.1 Develop inspection and test plans to validate performance measures throughout the performance cycle</p> <p>2.2 Test performance functions and record results according to <i>technical documentation standards</i></p> <p>2.3 Compare results of performance function testing to benchmark</p> <p>2.4 Redesign functions that do not meet appropriate performance benchmarks</p> <p>2.5 Re-implement functions that have been redesigned in performance testing</p> <p>2.6 Document benchmarks and obtain sign-off</p>
3. Obtain sign-off	<p>3.1 Validate and document performance standards and benchmarks</p> <p>3.2 Submit methodology and function testing document and results to client for approval</p> <p>3.3 Review client comments and make changes as appropriate</p> <p>3.4 Obtain sign-off for website testing procedure</p>

Required Skills and Knowledge

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

Required skills

- communication skills to liaise with internal and external personnel on technical, operational and business-related matters
- literacy skills to:
 - interpret feedback
 - interpret organisational guidelines
 - record results
- numeracy skills to:
 - take test measurements
 - measure statistics
 - interpret results
 - evaluate performance
- planning and organisational skills to:
 - develop procedures
 - plan, prioritise and monitor own work
- technical skills to:
 - conduct tests
 - design tests
 - evaluate tests
 - interpret design specifications.

Required knowledge

- applicability of copyright and intellectual property to website development
- Australian Computer Society Code of Ethics
- client business domain, including client organisation structure and business functionality
- current industry-accepted hardware and software products
- desktop applications and operating systems as required organisational guidelines
- queuing systems, workload metrics and user request classes
- standard generalised markup language (SGML) and associated standards
- standard web-testing procedures and optimisation tools
- website design methods and standard website structures.

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	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • identify the critical functions to be tested • develop appropriate metrics for each function and assign benchmarked performance standards • test each performance function and compare against the appropriate benchmarks in order to validate site performance against technical requirements • document results to establish the performance benchmarks for subsequent site development.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • analysis software • ebusiness website • industry standards and organisational guidelines • site design and technical requirements documentation • site-development software and tools • appropriate learning and assessment support when required. <p>Where applicable, physical resources should include equipment modified for people with special needs.</p>
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct observation of candidate selecting and conducting tests in adherence with operational procedures • review of candidate's documented procedures that measure the performance of a website • verbal or written questioning to assess knowledge of: <ul style="list-style-type: none"> • validation of performance standards and benchmarks • testing procedures • analysis techniques for results.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.</p> <p>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</p>

	<p>work being performed.</p> <p>Indigenous people and other people from a non-English speaking background may need additional support.</p> <p>In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.</p>
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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>Client</i> may include:	<ul style="list-style-type: none"> • external organisations • individuals • internal departments • internal employees • people who may have special needs.
<i>Technical documentation standards</i> may include:	<ul style="list-style-type: none"> • audit trails • International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) and Australian Standards (AS) • naming standards • organisational standards • policy relating to sign-off, storage, distribution, revision • project management templates • report writing principles • version control.

Unit Sector(s)

Web