



Australian Government

Department of Education, Employment and Workplace Relations

ICAWEB401A Design a website to meet technical requirements

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 a website to specifications within a particular technical and human interface environment.

Application of the Unit

This unit applies to web designers in a broad range of technical and managerial functions who are responsible for analysis, documentation and design, including identifying the technical and human computer interface requirements that drive design.

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. Define technical environment	1.1 Identify <i>business requirements</i> 1.2 Identify appropriate <i>standards</i> required to develop the site 1.3 Identify appropriate <i>hardware</i> and software required
2. Define human computer interface	2.1 Conduct <i>user</i> analysis to determine a user profile and user needs 2.2 Determine user content and requirements 2.3 Determine appropriate <i>design principles</i> for the site 2.4 Identify appropriate <i>operating system</i>
3. Determine site hierarchy	3.1 Identify hierarchy of pages 3.2 Ensure content is logical and accessible to user 3.3 Ensure that navigation between pages is consistent and clear
4. Integrate design components	4.1 Apply appropriate information hierarchy to site design 4.2 Ensure design principles are appropriate to business and user 4.3 Ensure process flow is developed in a logical and simple manner 4.4 Test site against user needs 4.5 Complete and document the <i>design structure</i>

Required Skills and Knowledge

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

Required skills

- communication skills to liaise with clients and staff
- literacy skills to interpret standards and requirements
- planning and organisational skills to conduct user analysis
- technical skills to:
 - conduct website analysis
 - use site design software.

Required knowledge

- basic information architecture
- business process design
- copyright and intellectual property
- customer and business liaison
- ebusiness sites and corporate strategy
- implications of technology connectivity
- procedures for documenting technical specifications
- relevant World Wide Web Consortium (W3C) standards
- 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 and select appropriate tools and procedures required to develop a website • analyse user analysis to identify site or design structure required • test website meets the standards required by the user profile or needs.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • analysis software • customer relationship model • ebusiness website • requirements documentation • site server • site server software • web servers • relevant standards and copyright information • 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 software and hardware types and identifying standards to meet business requirements • verbal or written questioning to assess candidate's knowledge of business standards • review of candidate's documented website design.
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 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>Business requirements</i> may include:	<ul style="list-style-type: none"> • external interfacing to the organisation • meeting customer needs • organisational goals • remote access.
<i>Standards</i> may include:	<ul style="list-style-type: none"> • Institute of Electrical and Electronics Engineers (IEEE) • International Organization for Standardization (ISO) • web-oriented groups, like Internet Engineering Task Force (IETF) and W3C • Organisation for the Advancement of Structured Information Standards.
<i>Hardware</i> may include:	<ul style="list-style-type: none"> • modems and other connectivity devices, such as digital subscriber line (DSL) modems • networks • personal computers • remote sites • servers • workstations.
<i>User</i> may include:	<ul style="list-style-type: none"> • department within the organisation • person within a department • third party.
<i>Design principles</i> may include:	<ul style="list-style-type: none"> • consistency • ease of learning • familiarity • flexibility • product compatibility • protection • responsiveness • robustness • simplicity • task compatibility • user compatibility • workflow compatibility.
<i>Operating system</i> may	<ul style="list-style-type: none"> • AIX • DEC

include:	<ul style="list-style-type: none"> • Digital Unix • Linux • Mac OS X • Netware • Silicon Graphics IRIX • Sun Solaris, SunOS • VMS • Win 98, NT, 2000, and XP.
<i>Information hierarchy</i> may include:	<ul style="list-style-type: none"> • content structure • locations and links to other internet resources where appropriate • page layout • secure access provisions • technical specifications.
<i>Design structure</i> may include:	<ul style="list-style-type: none"> • cascading style sheet (CSS) • XHTML.

Unit Sector(s)

Web