



Australian Government

Department of Education, Employment and Workplace Relations

ICAWEB418A Use development software and IT tools to build a basic website

Release: 1

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Modification History

Version	Comments
ICAWEB418A	This version 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 build a basic website that is consistent with design and technical requirements, and business expectations.

Application of the Unit

This unit applies to web developers responsible for building websites.

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. Select and analyse website structure and development tools	1.1 Analyse business specification and select appropriate software 1.2 Identify technical needs for the website and select appropriate software tools 1.3 Identify site structure and navigation flow and demonstrate understanding of functionality 1.4 Review design documentation and integrate design work with site structure and navigation, according to web development standards
2. Begin site construction	2.1 Take action to ensure user input during website construction 2.2 Validate existing information and basic content when incorporating data on website 2.3 Apply consistent design specifications to all aspects of the website 2.4 Gather feedback from user on web design, content, accessibility and structure, using appropriate feedback mechanism
3. Complete and validate website construction and content	3.1 Undertake an evaluation of the website against technical requirements and design specification 3.2 Test each function and process of the website 3.3 Conduct navigation tests and hypertext markup language (HTML) compliance with website standards 3.4 Stress test the website to meet design criteria and user load 3.5 Record testing results to ensure website meets user requirements 3.6 Obtain sign-off and approval of user

Required Skills and Knowledge

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

Required skills

- analytical skills to:
 - analyse business specification and select appropriate software
 - debug and handle errors
 - troubleshoot basic web links and HTML code errors
- communication skills to liaise with user
- literacy skills to review design documentation and record testing results
- technical skills to:
 - debug and handle errors
 - develop code in HTML
 - identify technical needs and site structure for the website
 - read design specifications and guidelines
 - use appropriate development software and tools.

Required knowledge

- basic knowledge of:
 - design principles
 - issues around accessibility and equity principles when building for diverse users
- detailed knowledge of:
 - appropriate software and tools that meet required technical specifications
 - standard generalised markup language (SGML) and the associated standards
 - website design
 - web-specific technical attributes.

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"> • build a basic website to website specifications • undertake and audit against the business requirements and design needs prior to task completion and sign-off.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • basic website specifications and guidelines • website development software and tools • internet server • organisational and industry standards • appropriate learning and assessment support when required • modified equipment for people with special needs.
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"> • verbal or written questioning to assess candidate's knowledge of website design and web-specific technical attributes • evaluation of candidate's: <ul style="list-style-type: none"> • code generation and the code results • completed website • direct observation of candidate creating website • review of candidate's created website and its fulfilment of requirements.
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</p>

	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>Specification</i> may include:	<ul style="list-style-type: none"> • current system functionality • technical requirements • user problem statement.
<i>Software</i> may include:	<ul style="list-style-type: none"> • Bluefish • commercial software applications • Dreamweaver • Fireworks • Golive • NetObjects Fusion • Notepad • text editors, such as Word pad.
<i>Software tools</i> may include:	<ul style="list-style-type: none"> • FrontPage • FTP programs • HotDog • Macromedia.
<i>Documentation</i> may follow:	<ul style="list-style-type: none"> • audit trails • International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) and Australian Standards (AS) standards • naming standards • project management templates • report writing protocols • version control.
<i>Web development standards</i> may include:	<ul style="list-style-type: none"> • Authoring Tool Accessibility Guidelines (ATAG) • Web Content Accessibility Guidelines (WCAG).
<i>User</i> may include:	<ul style="list-style-type: none"> • department within the organisation • person within a department • third party.

Unit Sector(s)

Web