



Australian Government

Department of Education, Employment and Workplace Relations

ICAWEB502A Create dynamic web pages

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 build active or dynamic web pages.

Application of the Unit

This unit applies to web developers responsible for creating dynamic pages to provide interaction between the user and the website.

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. Identify client and server-side dynamic content	1.1 Review technical requirements 1.2 Identify sections of the website requiring client-side dynamic content 1.3 Identify sections of the website requiring server-side dynamic content 1.4 Select appropriate <i>languages</i> and technology to meet the requirements
2. Create dynamic content	2.1 Create pages using appropriate languages 2.2 Ensure code conforms to current industry best practice and standards
3. Test dynamic pages	3.1 Test website in a variety of <i>browsers</i> 3.2 Ensure required dynamic content functions according to specified requirements

Required Skills and Knowledge

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

Required skills

- analytical skills to:
 - determine functional requirements
 - identify dynamic client and server-side requirements
- communication skills to liaise with the client
- initiative and enterprise skills to provide feedback and recommend the most appropriate technology solutions
- literacy skills to:
 - follow documented instructions
 - interpret workplace instructions and other technical documents
 - keep up-to-date with latest industry guidelines
- problem-solving skills to:
 - identify and rectify website functional problems
 - identify and resolve bugs in the created code
 - select the most efficient and effective algorithms
- research skills to:
 - find solutions to encountered problems
 - keep up-to-date with industry trends
- technical skills to:
 - apply basic hypertext transfer protocol (HTTP)
 - apply web programming concepts
 - create hypertext markup language (HTML) and eXtensible hypertext markup language (XHTML) pages
 - create software in a variety of languages, including client and server-side languages
 - create aesthetically pleasing web pages.

Required knowledge

- web-programming concepts, including:
 - authentication and web security
 - HTTP
 - session management
 - stateless programming
- detailed knowledge of:
 - internet technology
 - programming control structures
 - object-oriented programming.

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"> • produce dynamic web pages that include both client and server-side dynamic content • create efficient and effective code to meet technical requirements.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • appropriate learning and assessment support when required • modified equipment for people with special needs • development environment • server access • database server • browsers.
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"> • evaluation of dynamic web applications that include both client and server-side coding • written or verbal questioning to assess knowledge and skills of internet technology.
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>

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.

Languages may include:	<ul style="list-style-type: none"> • active server pages (ASP) • active server pages .net (ASP.NET) • Coldfusion • JavaScript • Perl • Perl hypertext preprocessor (PHP) • VBScript.
Browsers may include:	<ul style="list-style-type: none"> • Firefox • Google Chrome • Internet Explorer • Konqueror • Lynx • Mozilla • Netscape Navigator • Opera • Safari.

Unit Sector(s)

Web