



Australian Government

ICTWEB513 Build dynamic websites

Release: 1

ICTWEB513 Build dynamic websites

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to analyse and design websites to meet technical requirements.

It applies to individuals working as web developers, who are responsible for the analysis, design, implementation and testing of websites.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Web

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Define and analyse technical requirements	1.1 Identify business requirements and applicable legislative standards 1.2 Determine and document purpose, expectations and functionality of website according to organisational procedures 1.3 Analyse user interface design requirements including user needs, design principles and operating systems
2. Produce software design specifications	2.1 Produce a hierarchy of website showing navigation according to website requirements 2.2 Confirm content is logical and accessible to user according to website requirements 2.3 Produce prototype of user interface 2.4 Determine and document website architectural requirements

ELEMENT	PERFORMANCE CRITERIA
	2.5 Design data storage requirements according to website requirements
3. Develop website to specified design	3.1 Create software components of website according to website requirements 3.2 Test components of website according to organisational procedures 3.3 Integrate components and produce web application
4. Test and finalise web application	4.1 Test website against requirements and amend accordingly 4.2 Confirm website is secure and bug free according to cyber security procedures and protocols 4.3 Test functionality of website on multiple browsers and devices and update as required 4.4 Obtain feedback from required personnel and update web site as required 4.5 Complete and document design structure according to organisational procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Reading	Analyses complex documentation from a variety of sources and consolidates information applicable to specific criteria when determining requirements
Writing	- Prepares documentation analysing requirements and design specifications - Writes and edits code and technical data in a logical manner using the required syntax
Planning and organising	- Accepts responsibility for planning and sequencing complex tasks and workload - Negotiates key aspects with others, including required capabilities, efficiencies and effectiveness
Problem solving	Applies systematic and analytical decision-making processes for complex situations and issues
Self-management	Takes responsibility for following policies, procedures and standards
Technology	Uses and investigates new digital technologies and applications

SKILL	DESCRIPTION
	• Manages and manipulates data and communicates with others in a secure and stable digital environment

Unit Mapping Information

Supersedes and is equivalent to ICTWEB501 Build a dynamic website.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTWEB513 Build dynamic websites

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- build a dynamic website using code according to technical requirements.

In the course of the above, the candidate must:

- test the website on at least two different browsers and at least two different devices
- document website requirements and actions performed
- comply with organisational requirements and legislative standards.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- principles of analysis and design
- programming control and design structures
- web programming concepts, including:
 - authentication and web security
 - hypertext transfer protocol (HTTP)
 - session management
 - stateless programming
- client-side scripting and its application to dynamic website design, including:
 - hypertext markup language (HTML)
 - cascading style sheets (CSS)
- documentation processes applicable to documenting website design
- user-interface design requirements and production processes
- website design structures, including hierarchy and navigation design
- website architectural requirements

- data storage requirements
- website testing procedures
- debugging methods
- cyber security procedures and protocols
- organisational and legislative procedures applicable to building dynamic websites, including web development standards.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- client requirements
- a development environment
- a server
- a database server
- web browsers and devices
- hardware, software and its components required for building dynamic websites
- libraries and frameworks required for building dynamic websites
- website testing and debugging tools.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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