



Australian Government

ICTWEB430 Produce server-side script for dynamic web pages

Release: 1

ICTWEB430 Produce server-side script for dynamic web pages

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 4.0.

Application

This unit describes the skills and knowledge required to produce server-side scripts for dynamic web pages using a range of relevant features from different languages.

It applies to individuals working as web designers who apply a wide range of knowledge and skills across different information and communications technology (ICT) environments to support organisations that require broad ICT support.

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. Analyse the requirements for web documents requiring server-side dynamic interaction	1.1 Review and assess user requirements with user to determine the necessary web document 1.2 Determine and document dynamic functionality of web document to meet user requirements 1.3 Determine appropriate language based on required dynamic functionality 1.4 Finalise web document requirements
2. Design server-side scripts	2.1 Design web document and server-side code to interact with an external data source 2.2 Design web document and server-side code to allow

	administrator to insert, update, and delete entries to external data source 2.3 Implement security features in web document based on user requirements
3. Produce the web documents	3.1 Write extensible hypertext markup language (XHTML) in line with XHTML standards, to define web page structure 3.2 Write server-side scripts in line with XHTML standards to enable customised page content generation 3.3 Upload images to web-hosted database to enable dynamic retrieval for web page
4. Test the scripts and debug	4.1 Test web document and rectify issues to meet user requirements 4.2 Complete test results documentation and submit it to superior for discussion and acceptance
5. Set up security	5.1 Determine and implement permissions to prevent error messages displaying to the public 5.2 Configure server software to minimise potential database attacks

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	Identifies, analyses and evaluates workplace instructions and technical documentation, to determine all organisational requirements
Writing	Develops clear and well-organised material for a specific audience, using precise language to convey explicit information requirements and recommendations
Oral Communication	Clearly articulates requirements using the language appropriate to the audience, and participates in a verbal exchange of ideas/solutions
Navigate the world of work	Identifies and complies with the current standards
Interact with others	Uses strategies to establish a sense of connection, and to build rapport, with clients and colleagues
Get the work	Takes responsibility for planning, sequencing and prioritising tasks and own workload, for efficiency and effective outcomes

done	• Makes routine decisions and implements standard procedures for routine tasks, using formal decision making processes for more complex and non-routine situations • Uses familiar digital technologies and systems to access information, search and enter, data and code, present information and communicate with others, cognisant of data security and safety
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTWEB430 Produce server-side script for dynamic web pages	ICTWEB415 Produce server-side script for dynamic web pages	Updates to performance criteria and assessment requirements for clarity.	Equivalent unit

Links

Companion Volume Implementation Guides are available from VETNet -

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

Assessment Requirements for ICTWEB430 Produce server-side script for dynamic web pages

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Performance Evidence

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

- Create a dynamic web page according to one set of user requirements
- Use server-side scripting to retrieve information from a web-hosted database in two different instances
- Analyse three language options and the associated advantages and disadvantages based on web document requirements to select most appropriate language
- Configure one webserver to deliver the website using HTTPS
- Create one script for each of the following:
 - inserting, updating, and deleting data from a web server database
 - implementing security features
 - uploading and retrieving images
 - managing sessions and creating secure logins
- Test web document and undertake corrective actions to meet requirements
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Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements and performance criteria of this unit. This includes:

- Server-side technologies and at least three web scripting languages and associated advantages and disadvantages
- Server-side web analysis and design parameters
- XHTML standards
- Testing tools and processes and associated advantages and disadvantages
- Control structures and object-oriented programming
- Web-programming concepts including:
 - the hypertext transfer protocol (HTTP) and HTTP Secure (HTTPS)

- stateless programming
- session management
- authentication and web security
- database vulnerabilities and preventative software configuration and programming practices
- Organisational procedures to document test results
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Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in an ICT working environment or workplace. This includes access to:

- Web-hosted database
- Server with software for configuration
- User requirements relating to web documents
- Software development environment
- XHTML standards
- Individual users as well as superior in the organisation

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

Links

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