



Australian Government

ICTPRG505 Build advanced user interface

Release: 1

ICTPRG505 Build advanced user interface

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to design, build and test an advanced user interface (UI), including interaction techniques, rich controls, improved client-side validation, customisation and personalisation, graphics and multimedia.

It applies to individuals who work as user-interface designers and who are responsible for managing, and implementing, complex UI design.

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

Unit Sector

Programming and software development

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. Plan the UI design	1.1 Determine the appropriate client technology, development tools, and platform for writing the UI 1.2 Review the conceptual design with the client, and edit as required 1.3 Design the UI layout and structure
2. Implement interaction techniques	2.1 Apply the interaction design patterns 2.2 Implement client-side validation
3. Implement a customisable and	3.1 Build a customisable UI, to allow users to select their own customised version of the underlying application

ELEMENT	PERFORMANCE CRITERIA
personalised UI	3.2 Build a personalised UI to improve user experience
4. Implement the graphics and multimedia	4.1 Create and display the graphics 4.2 Add the multimedia content to an application

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2	Interprets, and critically analyses, complex texts and applies the appropriate strategies to construct meaning from complex texts, when reading and interpreting technical information, and determining suitable technology and tools
Writing	1.3, 2.1, 3.1, 3.2, 4.1, 4.2	- Prepares documentation, expressing ideas and exploring complex issues, that is constructed logically, succinctly and accurately - Writes and edits computer code, and technical data, ensuring the correct syntax and accuracy
Oral communication	1.2	Demonstrates flexibility in spoken texts by choosing appropriate structures, and strategies, in a range of contexts, and applies appropriate strategies to extract the main ideas from oral texts, when communicating with the client about the conceptual design of UI
Numeracy	1.3	Selects from, and applies, an expanding range of mathematical and problem-solving strategies in a range of contexts, when designing layout and structure
Get the work done	1.1, 1.3, 2.1, 2.2, 3.1, 3.2, 4.1, 4.2	- Understands the key principles and concepts underpinning the design, and operation, of digital systems and tools, and applies these when troubleshooting existing technology - Seeks to understand the potential of new technology, in the context of implementing interaction, and customisable features, and graphics and multimedia, into the UI

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG505 Build advanced user interface	ICAPRG505A Build advanced user interface	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTPRG505 Build advanced user interface

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Performance Evidence

Evidence of the ability to:

- apply advanced techniques in order to create a complex user interface (UI)
- determine the client's technology, development tools, and the UI platform
- plan the layout and structure
- review the conceptual design with the client
- implement interaction techniques, including interaction design patterns and client-side validation
- implement a customisable and personalised UI
- create and display the graphics
- add the multimedia.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe the concepts of programming, including:
 - client-side programming
 - object-oriented programming
 - web design programming in hypertext markup language (HTML), cascading style sheet (CSS), and JavaScript
- describe the purpose of UI prototyping
- outline the documentation requirements for UI development.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the programming and software development industry, and include access to:

- an integrated development environment (IDE)
- the client system, and the server system
- multimedia tools
- specific tools and licences, depending on the particular platform.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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