

# ICTPRG535 Build advanced user interfaces

Release: 1

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## **Modification History**

Release	Comments
	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 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 software developers and 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
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan UI design	1.1 Determine client technology, development tools, and platforms according to UI solution
	1.2 Review conceptual design with required personnel and seek and respond to feedback
	1.3 Design and document UI layout and structure according to UI requirements
2. Implement interaction	2.1 Apply interaction design patterns according to UI design plan
techniques	2.2 Implement client-side validation according to UI requirements
	2.3 Demonstrate alignment of implement interactions against UI design plan
3. Build customisable and	3.1 Build customisable UI and allow users to select their own

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ELEMENT	PERFORMANCE CRITERIA
personalised UI	customised version of the underlying application
	3.2 Build personalised UI according to UI design plan task requirements
	3.3 Demonstrate alignment of personalised UI to UI design plan
	3.4 Implement required updates and confirm improvement to user experience
4. Implement graphics and	4.1 Create and display the graphics according to UI requirements
multimedia	4.2 Add required multimedia content to the application
	4.3 Demonstrate alignment of implementing graphics against UI design plan

#### **Foundation Skills**

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

SKILL	DESCRIPTION
Numeracy	Selects from, and applies, an expanding range of mathematical and problem-solving strategies in a range of contexts, when designing layout and structure
Reading	• Interprets, and critically analyses, complex texts and applies the required strategies to construct meaning from complex texts, when reading and interpreting technical information, and determining suitable technology and tools
Writing	<ul> <li>Prepares documentation, expressing ideas and exploring complex issues using relevant industry language</li> <li>Writes and edits computer code, and technical data using correct syntax and logical flow</li> </ul>
Planning and organising	Uses nuanced knowledge of context to demonstrate knowledge of anomalies and subtle deviations to normal expectations, focusing attention and remedying problems as they arise
Problem solving	Understands the key principles and concepts underpinning the design, and operation, of digital systems and tools, and applies these when troubleshooting existing technology
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

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# **Unit Mapping Information**

Supersedes and is equivalent to ICTPRG505 Build advanced user interface.

### Links

Companion Volume Implementation Guide is found on VETNet - <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2</a>

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