ICTPRG409 Develop mobile applications

Release: 1

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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 develop, debug, test, and deploy applications for hand-held devices, using development platform environments.

It applies to individuals who work as mobile device application developers. They may be programmers, game developers, designers, or testers who are working in the area of mobile applications development.

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. Define a platform	1.1 Determine the target platform for the hand-held device 1.2 Choose and evaluate a development environment, based on the target platform and hardware 1.3 Prepare and configure the application development environment
2. Design the user interface for a mobile application	2.1 Create views for different screen orientations and resolutions 2.2 Integrate the appropriate navigation techniques 2.3 Design the page layout and content 2.4 Integrate the appropriate user input techniques

ELEMENT	PERFORMANCE CRITERIA
3. Permit the personalisation of parameters	3.1 Write the code to allow users to configure application settings
	3.2 Write the code to allow users to configure application output, such as text size, brightness, and sound effects
4. Build a user interface for a mobile application	4.1 Itemise the required functionality
	4.2 Build a user interface, in the determined development environment to fulfil this functionality
5. Connect to the data sources	5.1 Bind controls to data sources
	5.2 Persist data using extensible markup language (XML) serialisation
	5.3 Access remote data using XML web services
6. Test and debug a mobile device application	6.1 Test the application for overall functionality, according to the requirements
	6.2 Iterate the application design, or build, until the test results meet the requirements
7. Deploy a mobile device application	7.1 Create an application packaging for deployment
	7.2 Deploy an application to target devices

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	1.2	• Interprets, and critically analyses, complex texts when choosing and evaluating a development environment
Writing	2.3	• Communicates complex relationships between ideas and information, matching the style of writing to the purpose and audience, when designing the content
		• Displays a knowledge of structure and layout, employing a broad vocabulary, grammatical structure and conventions appropriate to text, when designing content
Numeracy	2.3	• Extracts and evaluates the mathematical information embedded in a range of tasks and texts, when designing layout
		• Selects from, and applies, an expanding range of

		mathematical and problem-solving strategies, when designing layout
Get the work done	1.1, 1.2, 1.3, 2.1-2.4, 3.1, 3.2, 4.1, 4.2, 5.1-5.3, 6.1, 6.2, 7.1, 7.2	• Uses systematic, analytical processes, setting goals, gathering relevant information and identifying, and evaluating, options against the agreed criteria • Uses analytical processes to decide on a course of action, establishing the criteria for deciding between options • Identifies concepts, principles and features of approaches in use in other contexts, and redesigns these to suit own situation • Understands, and explicitly applies, some basic principles of analytical and lateral thinking • Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG409 Develop mobile applications	ICAPRG409A Develop mobile applications	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e 9d6aff2