



Australian Government

ICTPRG603 Develop advanced mobile multi-touch applications

Release: 1

ICTPRG603 Develop advanced mobile multi-touch applications

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 design, develop, debug, test and deploy applications for hand-held digital devices using the advanced features of these devices.

It applies to application developers, software developers, game developers, designers and testers, who work 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
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish and work on target platform	1.1 Identify and document application requirements according to organisational requirements 1.2 Establish platform and install required development tools, and environment 1.3 Deploy completed applications target device and enable public download 1.4 Test application using an emulator and align to organisational requirements
2. Develop application for multi-touch device	2.1 Design and code application and respond to events according to device requirements 2.2 Design and code application and respond to taps, touches and gestures 2.3 Design approach according to device requirements

ELEMENT	PERFORMANCE CRITERIA
	2.4 Develop application and use autorotation and auto-resizing facilities according to device requirements
3. Develop code using features of mobile device	3.1 Determine and document features of mobile device according code specifications 3.2 Write code requiring web connectivity according to device requirements 3.3 Write code and enable communication with another device 3.4 Write code using application programming interface (API) and check relation to at least one other advanced device feature
4. Use available data persistence facilities	4.1 Write code to read and write to devices file system 4.2 Synchronise data between device and external data sources 4.3 Write code to make use of available database facilities on chosen device
5. Develop secure applications	5.1 Determine, document and apply performance objectives 5.2 Apply performance objectives according to organisational policies and procedures 5.3 Implement memory management and eliminate zombie processes according to application security requirements

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	Extracts, evaluates and manipulates the mathematical information embedded in a range of tasks and texts
Oral communication	Articulates information and requirements, using effective communication techniques and industry standard technical language intended for audience and environment
Reading	Identifies, analyses, and interprets complex technical and business protocol material in order to determine business requirements
Writing	- Accurately records and completes documentation according to organisational formats and procedures - Writes and edits code and technical data in a logical manner using required syntax
Initiative and enterprise	Demonstrates sophisticated knowledge of the principles, concepts, language and practices associated with the digital world, and uses

SKILL	DESCRIPTION
	these to troubleshoot, and understand the uses and potential of new technology
Planning and organising	• Uses a mix of intuitive and formal processes to identify key information and issues, evaluate alternative strategies, anticipate consequences, implementation issues and contingencies • When dealing with complex issues, may use intuition to identify common problems in building, and deploying mobile applications, and completing basic program debugging
Problem solving	• Uses nuanced knowledge of context to demonstrate and knowledge of anomalies and subtle deviations to normal expectations, focusing attention and remedying problems as they arise
Self-management	• Responds to both, explicit and implicit, protocols within familiar work contexts
Technology	• Demonstrates and awareness of the importance of knowledge, monitoring, and controlling access to digitally stored and transmitted information

Unit Mapping Information

Supersedes and is equivalent to ICTPRG601 Develop advanced mobile multi-touch applications.

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 ICTPRG603 Develop advanced mobile multi-touch applications

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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:

- design, build and test applications for mobile devices
- deploy applications onto at least two different types of mobile devices.

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:

- industry standard hardware and networking, requirements of a multi-touch application
- object-oriented programming applicable to advanced mobile multi-touch applications development
- user interface designs and their application in developing multi-touch applications
- web design methodology and its integration with hand-held devices
- industry standard mobile devices that use multi-touch technologies
- extensible markup language (XML) programming and web services applicable to developing multi-touch applications
- industry standard software application development methodologies.

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:

- at least two mobile devices
- integrated development environment (IDE)
- the internet and web services
- the server system

- industry standard tools and licences required for applicable platform.

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