



Australian Government

ICTPRG436 Develop mobile applications

Release: 1

ICTPRG436 Develop mobile 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 develop, debug, test and deploy applications for hand-held devices using development platform environments.

It applies to those who are involved in programming and software development and have responsibility for creating applications in small to medium businesses.

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. Define platform	1.1 Establish task and features required in mobile application 1.2 Determine target platform for hand-held device according to task requirements 1.3 Choose and evaluate development environment according to target platform and hardware 1.4 Prepare and configure application development environment
2. Design, integrate, build and customise mobile application	2.1 Create views and confirm functionality in different screen orientations and resolutions 2.2 Integrate required navigation techniques according to user needs 2.3 Design page layout and content according to

	organisational guidelines 2.4 Integrate required user input techniques and functionalities 2.5 Build user interface according to development environment and functionality 2.6 Write code to allow users to configure application output, including text size, brightness and sound effects
3. Connect to data sources	3.1 Bind controls to data sources 3.2 Persist and access remote data
4. Test and debug mobile device application	4.1 Test mobile application according to functionality requirements 4.2 Iterate application design and build, until test results meet requirements 4.3 Seek feedback from required personnel and respond accordingly
5. Deploy mobile device application and finalise documentation	5.1 Create application packaging used in deployment 5.2 Use application on target devices 5.3 Document deployment procedures and obtain sign-off from required personnel

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
Numeracy	- Extracts and evaluates 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 techniques when designing layout
Reading	Interprets and critically analyses complex texts when choosing and evaluating development environment
Writing	- Prepares documentation detailing deployment procedures according to organisational requirements - Writes and edits code and technical data in a logical manner using required syntax
Initiative and enterprise	Identifies concepts, principles and features of approaches in other contexts and redesigns these according to situation
Planning and	Uses systematic processes, setting goals, gathering information and

SKILL	DESCRIPTION
organising	identifies and evaluates options against agreed criteria
Problem solving	- Identifies and explicitly applies some basic principles of analytical and lateral thinking - Decides on a course of action using analytical processes
Technology	Applies principles, concepts, language and practices applicable to digital world

Unit Mapping Information

Supersedes and is equivalent to ICTPRG409 Develop mobile 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 ICTPRG436 Develop mobile 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:

- develop at least one mobile application using a platform and development environment according to task requirements.

In the course of the above, the candidate must:

- determine, prepare and configure a development environment
- design and build a user interface
- test and debug application and confirm task requirements are met.

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:

- programming considerations of mobile device hardware and networking
- applicable programming languages and frameworks
- programming constructs used in interacting with mobile applications
- constraints of different digital devices
- user-interface design principles and implementation methods applicable to developing mobile applications
- organisational guidelines and procedures applicable to developing mobile applications
- industry standard mobile and digital platforms.

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:

- mobile and digital devices and simulators
- integrated development environment (IDE)
- the internet
- server system with sufficient privileges to deploy applications
- platform and its tools
- required hardware and its components.

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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