



Australian Government

ICTPRG404 Test applications

Release: 1

ICTPRG404 Test applications

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 prepare test plans, write test procedures or scripts according to test plans, and maintain test plans and scripts.

It applies to individuals who may be responsible for test plan preparation, execution, maintenance, and reporting of tests; as well as defect management in the software development life cycle.

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. Determine testing need in development	1.1 Identify testing role across software development life cycle 1.2 Identify testing types and testing tools 1.3 Recognise testing benefits, standard and terms
2. Prepare test plan document	2.1 Gather requirements to develop test plan 2.2 Analyse and identify test data using various test-case design techniques 2.3 Define and design test cases
3. Write and execute test	3.1 Choose and adopt a unit test framework

ELEMENT	PERFORMANCE CRITERIA
procedures	3.2 Design and implement algorithm in test procedures 3.3 Perform test executions
4. Review test results	4.1 Record test results 4.2 Analyse test results 4.3 Produce test progress reports 4.4 Manage defects

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, 1.3, 2.2, 4.2	Interprets technical documentation to determine requirements
Writing	3.2, 4.1, 4.3	Completes workplace documentation accurately and in an appropriate format
Numeracy	3.2	Creates and uses basic mathematical equations
Get the work done	1.2, 2.1, 2.2, 2.3, 3.1, 3.3, 4.2, 4.4	- Takes responsibility for planning, sequencing and prioritising tasks and own workload to achieve outcomes - Uses systematic, analytical processes, gathering relevant information, and identifying and evaluating options against agreed criteria when applying testing and debugging techniques - Employs a range of sophisticated digital tools and techniques to meet desired outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG404	ICAPRG404A	Updated to	Equivalent

Code and title current version	Code and title previous version	Comments	Equivalence status
Test applications	Test applications	meet Standards for Training Packages	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 ICTPRG404 Test applications

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Performance Evidence

Evidence of the ability to:

- apply test case design techniques to develop a test plan, and to test cases that adequately cover specific test requirements
- design, implement and execute test procedures, or scripts, by using a unit test framework and an integrated development environment (IDE)
- create test progress reports based on recorded test results.

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 characteristics of programming languages
- explain input and output requirements
- outline the life cycle for software development
- outline the processes and techniques for testing small-size applications.

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:

- the software development environment
- specific test requirements, such as the test-plan document
- suitable code to be tested
- word-processing software.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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