



Australian Government

ICTPRG529 Apply testing techniques for software development

Release: 1

ICTPRG529 Apply testing techniques for software development

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 test strategies and implement tests to assure the reliability and quality of an application.

It applies to individuals who are responsible for test plan preparation, execution and maintenance, the reporting of tests and defect management in an application. These individuals include quality assurance analysts, test analysts, testers, system testers, software testers, test leads and developers.

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. Plan and design the test | 1.1 Analyse and review software development specifications 1.2 Determine the test context, scope, standard and methodology 1.3 Determine the test types and tools 1.4 Determine test input data requirements 1.5 Design the test plan, and test cases, using various test design techniques |
| 2. Prepare the test environment | 2.1 Analyse and review documents to prepare the test environment 2.2 Determine test environment requirements |

| ELEMENT | PERFORMANCE CRITERIA |
|--------------------------------------|--|
| | 2.3 Build and set up the test environment |
| 3. Implement and execute the test | 3.1 Build input data for testing 3.2 Create the test suite or script from test cases 3.3 Execute the test cases 3.4 Create the test record to store test result |
| 4. Manage defect and testing process | 4.1 Evaluate and report the test results 4.2 Track the defect and verify the fixes 4.3 Maintain and archive test ware |

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, 1.4, 2.1 | <ul style="list-style-type: none"> Reviews, and evaluates, technical and business requirements |
| Writing | 4.1 | <ul style="list-style-type: none"> Develops the technical reports and documentation appropriate for the target audience |
| Get the work done | 1.2, 1.3, 1.5, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.2, 4.3 | <ul style="list-style-type: none"> Takes responsibility for planning, sequencing and prioritising processes, and tasks, to achieve the required outcomes Applies systematic and analytical problem-solving processes, to develop the appropriate security access control strategies Uses a range of digital tools and sophisticated techniques to meet the desired outcomes |

Unit Mapping Information

| Code and title current version | Code and title previous version | Comments | Equivalence status |
|--------------------------------|---------------------------------|----------|--------------------|
| | | | |

| Code and title current version | Code and title previous version | Comments | Equivalence status |
|---|--|---|-------------------------------|
| ICTPRG529 Apply testing techniques for software development | ICAPRG529A Apply testing techniques for software development | 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-b778-71c9e9d6aff2>