



Australian Government

ICTPRG540 Maintain custom software

Release: 1

ICTPRG540 Maintain custom software

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 maintain software to client user requirements.

It applies to individuals who may work as software developers who are required to maintain existing software.

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 software fault	1.1 Determine details of software faults 1.2 Identify and document technical data required to troubleshoot determined fault 1.3 Submit documentation to required personnel and seek and respond to feedback
2. Identify and isolate fault	2.1 Review program documentation and identify specific modules according to task requirements 2.2 Review the source code and identify logic errors according to technical data 2.3 Read manuals, help files and 'read me files,' and determine if there is a known fix 2.4 Conduct required testing and identify and document fault 2.5 Escalate faults that cannot be identified to required personnel

ELEMENT	PERFORMANCE CRITERIA
	according to organisational procedures
3. Design fix for fault	3.1 Determine and document faults and initial fix suggestions according to organisational requirements 3.2 Determine and document alternative options and choose required solution 3.3 Determine and document impact of fix on other parts of system 3.4 Document required changes according to organisational guideline 3.5 Submit documents to required personnel and seek and respond to feedback
4. Implement fix to software	4.1 Identify and obtain access to required software development tools, source code, and libraries 4.2 Construct required fault correction code according to organisational and programming standards 4.3 Compile code for changed programs and associated modules 4.4 Correct, and resubmit required code until error free 4.5 Document changes according to organisational and programming standards
5. Test fix and associated system areas	5.1 Check logic and determine it works with test data, corrects original fault, and does not cause problems elsewhere 5.2 Request users to perform acceptance testing and document outcomes 5.3 Submit documentation to required personnel and seek and respond to feedback 5.4 Confirm acceptance by systems operations and arrange for sign-off, according to procedures

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

SKILL	DESCRIPTION
Oral communication	Uses listening and questioning techniques to confirm requirements and articulate complex concepts
Reading	Analyses and interprets complex technical documents for specific information

SKILL	DESCRIPTION
Writing	Prepares technical workplace documents detailing processes and outcomes that fulfil the expectations of different stakeholders
Teamwork	Liaises with various stakeholders and negotiates mutually agreeable outcomes
Planning and organising	Takes responsibility for planning, sequencing and prioritising tasks to achieve deadlines
Problem solving	- Identifies technical or conceptual issues, and applies analytical processes to resolve issues - Uses a range of digital tools and sophisticated techniques to meet the desired outcomes
Self-management	Takes personal responsibility for following explicit and implicit policies, procedures and standards
Technology	Demonstrates sophisticated knowledge of principles, concepts, language and practices associated with the digital world

Unit Mapping Information

Supersedes and is equivalent to ICTPRG510 Maintain custom software.

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 ICTPRG540 Maintain custom software

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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:

- maintain and fix at least one custom software application.

In the course of the above, the candidate must:

- deploy range of solutions to replicate results
- document processes and outcomes.

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:

- concepts relating to analysing a system performance compared with the system's current functionality
- processes and procedures relating to testing software systems
- industry standard hardware and software products, as they relate to system maintenance
- programming code required for the project
- program documentation required for maintaining custom software
- impact of changes on applications and systems relating to maintaining custom software
- programming standards relating to custom software.

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:

- required fault logs and help-desk reports

- software development tools, documentation and environment required for maintaining custom software
- source code and libraries required to maintain custom software.

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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