



**Australian Government**

# **ICTPRG506 Design application architecture**

**Release: 1**

# ICTPRG506 Design application architecture

## 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 design the structure of software or systems components, and how they interact.

It applies to individuals who may work as software architects, developers, designers, software engineers or programmers responsible for designing, and building, solution architecture.

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. Gather and confirm the architecture requirements	1.1 Gather information regarding the architectural requirements 1.2 Establish and document the architectural requirements
2. Design layered architecture	2.1 Separate the areas of concern into logical layers 2.2 Determine cross-cutting concerns 2.3 Define the system into components 2.4 Identify the responsibilities of each component 2.5 Identify the interconnections between components
3. Plan a strategy to re-use components	3.1 Determine an appropriate strategy for communicating with external systems

ELEMENT	PERFORMANCE CRITERIA
	3.2 Interact with existing legacy components
4. Design for globalisation and localisation	4.1 Determine culture specific information 4.2 Consider database design features 4.3 Select the appropriate user interface 4.4 Develop a software product for worldwide distribution 4.5 Develop a software product for a specific country

## 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, 2.2, 2.3, 2.4, 2.5, 4.1	<ul style="list-style-type: none"> <li>Interprets complex technical, and non-technical, information from a range of sources</li> </ul>
Writing	1.2	<ul style="list-style-type: none"> <li>Prepares technical workplace documents that fulfil the expectations of different stakeholders</li> </ul>
Communicate with others	4.1, 4.2	<ul style="list-style-type: none"> <li>Identifies, and explores, the differences between a diverse range of people and cultures in a programming context</li> </ul>
Get the work done	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 4.2, 4.3, 4.4, 4.5	<ul style="list-style-type: none"> <li>Takes responsibility for planning, sequencing, and prioritising tasks in order to achieve the required outcomes</li> <li>Uses a range of digital tools and sophisticated techniques, to meet the desired outcomes</li> <li>Identifies technical or conceptual issues, and applies analytical processes to resolve these issues</li> <li>Uses analytical and lateral thinking to review current practices, and to develop new or improved software or systems</li> </ul>

## Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG506 Design application architecture	ICAPRG506A Design application architecture	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>