



Australian Government

ICTPRG548 Develop high-level object-oriented class specifications

Release: 1

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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 analyse requirements and produce a set of high-level object-oriented class specifications.

It applies to those who are required to develop object designs as part of the systems design process.

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. Analyse behaviour of objects	1.1 Analyse and document behaviour scenarios according to object design requirements 1.2 Identify classes, objects and abstract data types according to object design requirements 1.3 Prepare class, object, module and process diagrams according to object-oriented class specifications
2. Prepare state model	2.1 Analyse data requirements and iterate data flows according to object design requirements 2.2 Determine and document required state-transition diagrams 2.3 Seek respond to feedback from required personnel, and update abstract data types and specifications according to

ELEMENT	PERFORMANCE CRITERIA
	feedback
3. Describe roles and responsibilities of classes	3.1 Review functional requirements, assign responsibilities and update class structures according to task requirements 3.2 Determine and document interface and class communication requirements 3.3 Determine and document required interaction diagrams
4. Iterate and review object model	4.1 Review and document finding of current object model, class functionality and data transformation 4.2 Identify and develop class relationships, priorities, and the inheritance hierarchy according to object-oriented class specifications 4.3 Analyse and document class-service requirements and initial test criteria 4.4 Identify and document object processes and reuse classes 4.5 Submit documentation to required personnel and seek and respond to feedback according to organisational requirements

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	Articulates information and requirements, using effective communication techniques and industry standard technical language intended for audience and environment
Reading	Interprets, and analyses, complex technical documentation
Writing	Accurately records and completes documentation according to organisational formats and procedures
Teamwork	Shares knowledge, information and experience openly, liaising with colleagues to achieve the best possible outcome
Planning and organising	Operates from a broad conceptual plan, developing the operational detail in stages, regularly reviewing priorities and performance during implementation, and identifying and addressing issues
Problem solving	- Uses a range of digitally based technologies to access, extract and share relevant information, in order to achieve the required outcomes - Identifies technical or conceptual issues, and applies analytical processes, to resolve these issues

SKILL	DESCRIPTION
	• Uses analytical and lateral thinking to review current practices, and to develop new or improved software or
Self-management	• Uses systematic processes, setting goals, gathering required information and identifying and evaluating options against agreed criteria
Technology	• Uses analytical and lateral thinking to review current practices, and to develop new or improved software or systems

Unit Mapping Information

Supersedes and is equivalent to ICTPRG524 Develop high-level object-oriented class specifications.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>