



Australian Government

ICTPRG514 Prepare for software development using rapid application development

Release: 1

ICTPRG514 Prepare for software development using rapid application 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 carry out rapid application development (RAD), in the context of preparing for software development. The selection and use of suitable RAD tools can have an impact on the cost and quality of a software project.

It applies to individuals who are programmers in a variety of information technology areas, who develop software using RAD.

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 RAD requirements	1.1 Select and use, the most suitable industry-standard tool set 1.2 Implement a prioritised plan using a series of recursive stages of build, and review for delivery of the system 1.3 Implement and incorporate a physical database 1.4 Identify, document, and schedule the modules to be implemented by incremental development techniques 1.5 Identify and formally allocate responsibilities to the authorised user, and to suitably skilled builders, for each module 1.6 Plan for, and document, the endorsement of reviews,

ELEMENT	PERFORMANCE CRITERIA
	administration schedules and development milestones
2. Determine the work metrics	2.1 Set development goals 2.2 Seek and secure agreement on, and adherence to, a single common notation 2.3 Determine the tools, features and techniques most appropriate to the development environment 2.4 Facilitate, plan, develop, and document version and change-control methods 2.5 Facilitate training and exposure for the user participants via RAD
3. Implement the administration method	3.1 Determine and reach agreement of stakeholders on the specifications 3.2 Confirm the dates for milestones with stakeholders, and secure with written agreement 3.3 Inform the production system's parties, and secure with written acknowledgment 3.4 Administer and maintain, time-recording and management methodologies

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	Interprets, and critically analyses, complex texts and applies the appropriate strategies to construct meaning from complex technical documents
Writing	1.4, 1.6, 2.4, 3.2, 3.3	Displays a knowledge of structure and layout, employing a broad vocabulary, grammatical structure and the conventions appropriate to text, when developing documentation
Oral communication	2.5, 3.1, 3.2, 3.3	Demonstrates flexibility in spoken texts by choosing the appropriate structures and strategies, and applies appropriate strategies to extract the main ideas from oral texts when liaising with stakeholders, facilitating training and informing parties on the administration

		method
Interact with others	2.2, 2.5, 3.1, 3.3	- Recognises and applies, the protocols governing what to communicate, with whom, and how, when liaising with stakeholders, facilitating training and informing parties on administration methods - Recognises the importance of joint ownership of the process, and outcomes, and tries to identify common ground, shared goals, and agreement on the best course of action
Get the work done	All	- Sequences and schedules complex activities, monitors implementation, and manages relevant communication, when implementing a prioritised plan and database, scheduling timelines, allocating responsibilities, and establishing goals and methods - Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account - Uses analytical processes to decide on a course of action, establishing the criteria for deciding between options - Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world, and uses these to troubleshoot and understand, the uses and potential of new technology

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG514 Prepare for software development using rapid application development	ICAPRG514A Prepare for software development using rapid application development	Updated to meet Standards for Training Packages	Equivalent 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 ICTPRG514 Prepare for software development using rapid application development

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- select, and use, a rapid application development (RAD) tool set
- implement a prioritised plan
- implement and incorporate a physical database
- identify, document and schedule the modules to be implemented
- identify and allocate responsibilities
- plan for and document the endorsement of reviews, administration schedules and milestones
- determine work metrics
- set the development goals
- seek and secure an agreement on, and adherence to, a single common notation
- determine the most appropriate tools, features and techniques
- facilitate, plan, develop and document version and change-control methods
- facilitate training and exposure for the user participants via RAD
- implement administration
- determine and secure the agreement of stakeholders
- confirm dates, and secure written agreement for the milestones
- inform the production-system parties and secure written acknowledgment
- administer and maintain, time-recording and management.

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 commonly used and industry-accepted prototyping tools
- describe the client business and the impact on the software application

- identify, and describe, the programming languages commonly used for application development
- outline the quality assurance practices required for software development
- outline the industry development methodologies used for software development.

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 computer-aided software engineering tools (CASE) repository, to facilitate the re-use of templates and components
- CASE tools
- detailed user requirements
- prototyping software
- the requirements document, including the model and scope.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

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