



Australian Government

ICTPRG444 Analyse software requirements

Release: 1

ICTPRG444 Analyse software requirements

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 research and analyse client requirements, produce a range of options for business process efficiencies and create a software-requirements document.

It applies to those who are required to perform an analysis role in formulating software requirements in a range of work environments. They may work as database or computer developers, business analysts, or project managers.

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 client requirements	1.1 Confirm requirement and scope of project with required personnel 1.2 Gather information regarding requirements via sources of information and business processes 1.3 Analyse client requirements and problem context and opportunity faced by client 1.4 Document client requirements, project scope, related problems and sources of information according to organisational procedures 1.5 Submit document to required personnel and seek and respond to feedback

2. Analyse functional and related non-functional requirements and feasibility of project	2.1 Map business processes using modelling tool including unified modelling language (UML) 2.2 Determine opportunities in business process efficiencies 2.3 Document functional and non-functional processes according to organisational procedures 2.4 Analyse technical and operational feasibility of project 2.5 Determine budget and schedule feasibility of project 2.6 Examine purpose and intent of project within organisation
3. Develop high-level system solutions	3.1 Develop and document feasible solutions according to client requirements 3.2 Explore and document the feasibility of each solution 3.3 Examine alternatives against project constraints 3.4 Document assumptions, dependencies and required resources 3.5 Produce a project risk analysis according to project requirements 3.6 Document future requirements according to organisational procedures
4. Prepare and publish software-requirements documentation	4.1 Develop software-requirements document according to organisational procedures 4.2 Submit software-requirements report to required personnel and obtain project approval

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	• Selects from, and applies an expanding range of mathematical and problem-solving techniques when determining project budget and schedule feasibility
Oral communication	• Uses listening and questioning techniques to obtain information and requirements using industry language for intended audience
Reading	• Interprets and critically analyses and applies strategies and constructs meaning from complex texts when gathering and

SKILL	DESCRIPTION
	analysing information
Writing	• Develops documentation detailing requirements, scope of work and solutions using appropriate structure, layout and technical programming language
Planning and organising	• Sequences and schedules complex activities, monitors implementation and manages communication
Problem solving	• Decides on a course of action using analytical processes • Uses a systematic process and identifies possible solutions to a difficult problem • Uses systematic processes in predictable and unpredictable situations, setting goals and gathering information
Self-management	• Identifies and responds to both explicit and implicit protocols when submitting report to required personnel for approval
Technology	• Accesses, organises, analyses and displays information applicable to software requirements using a range of digital systems and tools

Unit Mapping Information

Supersedes and is not equivalent to ICTPRG419 Analyse software requirements.

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 ICTPRG444 Analyse software requirements

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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:

- develop at least two high-level system solutions for one set of software requirements according to client requirements.

In the course of the above, the candidate must:

- analysing and document at least two functional and at least two non-functional requirements
- document requirements and work performed according to organisational procedures
- submit documents and obtain approval.

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:

- tools and techniques that may be used to analyse software requirements including;
 - client business domain
 - content features including clarity and readability
 - system functionality
 - document design and usability
 - budget creation techniques
 - modelling tools including unified modelling language (UML)
 - documentation techniques
 - risk analysis techniques
 - functions and features, of templates and style guides
 - the role of stakeholders and the degree of stakeholder involvement
 - software development life cycle overview

- systems development methodologies
- organisational procedures.

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:

- documentation regarding client and software functionality requirements
- sources of information including client business processes
- word processing software and its features
- required hardware and digital devices
- industry standard modelling 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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