



Australian Government

ICTXRE401 Apply augmented reality solutions in organisations

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with the Information and Communications Technology Training Package Version 8.0. Newly created unit of competency to address in-demand skills needs.

Application

This unit describes the skills and knowledge required to design and implement augmented reality (AR) user experience (UX) solutions across organisational processes. It involves investigating extended reality technologies and developing AR UX solutions to meet business requirements.

The unit applies to individuals working in information and communications technology (ICT) roles, such as software developers, who contribute to activities required for the implementation of extended reality solutions in workplace contexts.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Extended reality

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. Prepare to design AR solutions	1.1 Confirm work brief and tasks according to organisational policies and procedures 1.2 Research industry-recognised AR solutions according to organisational policies and procedures 1.3 Shortlist preferable AR solutions according to work brief 1.4 Recommend shortlisted AR solutions and gain approval from required personnel
2. Design and test AR	2.1 Analyse existing system architecture and programming

ELEMENT	PERFORMANCE CRITERIA
solutions	requirements 2.2 Create AR solution design according to work brief 2.3 Create AR implementation plan 2.4 Source AR configuration hardware, software and tools according to implementation plan and confirm component serviceability 2.5 Configure and test AR solution prototype according to design and programming requirements 2.6 Deploy AR solution across specified organisational processes
3. Support AR solutions	3.1 Research three-dimensional (3-D) technologies related to the implemented AR solution according to work brief 3.2 Seek AR technical assistance and monitor AR solution where required and according to organisational policies and procedures 3.3 Report on monitored AR solution to required personnel according to organisational needs
4. Analyse AR solutions	4.1 Detect any issues in post-deployment AR solutions according to work brief 4.2 Test and rectify any detected issues 4.3 Report on analysis findings according to organisational policies and procedures 4.4 Store AR solutions in required locations according to organisational policies and procedures

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
Reading	Reviews complex texts with at times complex technical terms
Writing	Develops a broad range of materials using clear language in order to convey specialised information and requirements
Planning and organising	Uses formal processes to identify key information and issues, evaluate strategies and plan to rectify implementation issues
Problem solving	Uses formal analytical techniques to implement solutions

Unit Mapping Information

No equivalent unit. Newly created unit.

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 ICTXRE401 Apply augmented reality solutions in organisations

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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:

- design and deploy at least two augmented reality (AR) solutions into a virtual workspace, using at least one of the following concepts:
 - web design-based concepts
 - application design-based concepts
 - mobile design-based concepts.

In the course of the above, the candidate must:

- develop AR prototype using required programming language
- securely and safely store AR solutions in required locations
- apply required organisational policies and procedures.

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:

- key functions and features of desktop, web and mobile programming language, including:
 - Java Script
 - Python
 - C#
 - C++
- key functions and features of web developments and components, including:
 - backends
 - servers

- application programming interfaces
- application development
- game development
- required functions and features of:
 - neural networks and machine learning
 - three-dimensional (3-D) and animation technologies
- industry-recognised types of extended reality (ER) platforms for AR
- AR-enabled hands-free solutions, including:
 - AR headsets
 - smart glasses
 - portable devices
 - lens studio filters
- functions and features of:
 - AR implementation plans
 - required AR configuration hardware, software and tools
 - AR solution integration designs
 - AR solution prototypes
 - user experience (UX) solutions
- methods to confirm component serviceability
- methods to configure and apply AR solutions in virtual workspaces using different concepts and technical guidelines
- functions and application of testing tools and equipment to apply AR in organisations
- organisational formats for documentation and reports
- organisational policies and procedures and legislative requirements relating to work tasks.

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:

- a virtual workspace where AR solutions are to be applied
- AR technological infrastructure, including tools, hardware, software and configuration components
- opportunities for interaction with others
- work brief and organisational policies and procedures required to demonstrate the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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